

THE  
NATURE OF INFLAMMATION,

AND THE  
PRINCIPLES ON WHICH IT SHOULD BE TREATED.

EXAMINED FROM A COMMON SENSE POINT OF VIEW.

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ITS NATURE AND ALLIANCES;

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TO THE  
GENTLEMEN ATTENDING MY LECTURES  
ON  
THE PRINCIPLES AND PRACTICE OF MEDICINE,

*This Book is Ascribed,*

WITH THE STRONGEST WISHES FOR THEIR  
FUTURE USEFULNESS AND EMINENCE,

BY THEIR SINCERE FRIEND,

THE AUTHOR.



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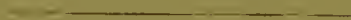
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## PREFACE.

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THE following short treatise has been put together, in order to present, in an available form, the substance of those lectures I have delivered to my class in an extempore manner from short notes.

On becoming a Lecturer on Medicine, I found abundant materials for the history of all the physiological phenomena of inflammation, but I searched in vain for what seemed to be trustworthy *principles* on which it should be treated.

The remarks made on the subject by authors seemed to be sound enough on paper, but when they were tested by bedside experience, their value and importance sadly dwindled down. What appeared to be a lance, on trial turned out to be a broken reed—the sword was polished iron and not steel—and the elegantly finished rifle would not shoot straight. In addition to this there was a formidable medical heresy making itself heard in a most conspicuous manner. Most of its professors had been educated amongst ourselves, they were quite familiar with the established doctrines, and yet they preferred the new. However some may have been actuated by lucre, the majority were honest-hearted men, who firmly believed in the principles, and especially in the practice they had adopted. They challenged enquiry, and that enquiry I considered ought to be accorded by one who professed to be a teacher of others.

In instituting the examination three alternatives suggested themselves :—

Either we are right and they are wrong, or they are right and we are wrong, or both are wrong and both are right to a considerable extent.

As the last seemed the most probable, I made it a business to examine rigorously the principles upon which we based our treatment, how far it was strictly rational, philosophical, and in accordance with advanced physiological knowledge, and whether there were any principles which we might be said to hold in accordance with the disciples of Hahnemann.

Laying it down as a broad fact that globulism was nothing more than an extremely clever system for not interfering with, or at any rate not depressing, the powers of nature, (for it is absurd to suppose that the infinitesimal dose employed can have more effect on the system, than pointing a potatoe at a herring lies upon the stomach), it was easy to see that we could give in our adhesion to it in a vast number of instances.

It next became a matter of enquiry whether our medicaments, though used *secundum artem*, and with the best intentions, did not in reality unduly depress the vital powers, and thus bring about a state of things they were intended to ward off.

Having had large opportunities for watching the practice of others during my younger days, I had at last, by an hospital appointment, facilities for testing my own views on a large scale. Indistinct at first, and seeing but dimly large and broad principles, my ideas gradually acquired a definite arrangement, and I could at last make out, as I thought, very clearly, the grand basis of medical treatment. I could see how I had erred, how a disease had been considered as an entity,—as an enemy which had entered the body and required to be driven away or destroyed, rather than what it really is—a modified condition of the system, which can only be cured through the medium of the systemie powers.

Conformably with the views promulgated in the ensuing pages I treated my patients, and instructed clinically those who came to the hospital to study. I had, however, no notion of making my views public, until I received a letter from a gentleman who had been my clinical clerk for two years, and of whose intellectual intelligence I had formed a high estimate; he had left us to go to an hospital in London which stands high in general esteem. In it he gives me an account of the treatment pursued there, and its results as compared with those he had seen at Liverpool. I am unwilling to enter into further details than to state that he gives me no reason to change my plan. It is with the hope of inducing others to adopt a strictly rational system of medicine, that the following observations have been penned.

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## CHAPTER I.

## INTRODUCTION.

AFTER so much has been written by various authors upon the subject of inflammation, it might well appear presumptuous even in idea, to attempt to say anything fresh. I have, however, first as a student, and subsequently as a practitioner, been so discontented with the style of reasoning and practice adopted by authors and others, that I have felt a great repugnance to going along the old beaten track, till I was convinced that it was in reality the best one for conducting those who trust themselves to our skill from disease to health.

Doubt in the physician's mind ought to lead to examination and to a painstaking investigation of every disputed point. In the course of his enquiry evidences will start up, as in a case of murder, of extremely questionable value, yet he must test them nevertheless. The man who turns "King's Evidence" may be a villain, liar, and scoundrel, and yet he may for once tell the truth. The crown lawyer praises his boldness and honesty—the prisoner's counsel decries his trustworthiness—and the jury decide. In reality Medicine is on its trial now before the public—Hahnemannism on one side, Collegism on the other. Many witnesses are analogous to "King's Evidence;" they knew us, they have left us, and now oppose us; we endeavour to weaken their testimony, they to weaken ours; the public, say what we will, are the jury, for in the last resort it is they who choose by what plan they will be treated, or, at any rate, by what individual they will be attended. I believe for myself that the contest between one party and another is the result of mutual errors, and that a careful comparison between the doctrine of one and the practice of the other will even-tuate in good. The older physicians have been acute, accurate, painstaking, and logical in their observations, and in their theories up to a certain point. They have then mistaken assertions for facts, have reasoned on false data, and drawn of necessity incorrect conclusions, their practice has been transparently bad. The more recent party have started from a point which opposes the practice, and which dictates an entirely opposite theory to that commonly received; but their theory has proved to be as antagonistic to common sense, as the practice of the others was incompatible with comfort and general

success. Those who have adopted in their entirety either one or other doctrine, have refused to make a compromise; with both the motto seems to be "Aut Cæsar, aut nullus," and the natural result is a strong feud. Fortunately, physicians are not necessarily clansmen; grievances do not descend always from one generation to another, and those who are starting life can look at opposing theories without prejudice. As one of the rising generation, and especially as one whose duty it is to instruct others, I have made it a business to examine the rival claims of the two systems with as much impartiality as I could summon to my aid, and I have endeavoured to give, in the following pages, the result of that enquiry. I have occasionally personified the old style of thought under the name of Dr. Dignity, the modern innovation under the name of Dr. Pathy; Dr. Common Sense is supposed to be the arbiter between them. I start by taking for granted the account of inflammation as is commonly laid down in books. Dr. D., after closely examining for himself the various phenomena of congestion and inflammation in the bat's wing, the frog's foot, and the fish's tail; having read Paget's, Wharton Jones', Travers', Carpenter's, Watson's, Latham's, and John Simon's remarks and experiments, comes to the conclusion that venæsection, cupping, or leeches, antimony and calomel, are the best means for curing inflammatory diseases. He looks abroad at hospital practice, and he finds that the wisdom of the ancients has recognized the same conclusions, that the moderns follow in their wake, and that both alike are satisfied with the truth of the theory and the success of the practice, and he determines with them "stare super vias antiquas." By-and-bye, however, Dr. H. Pathy says, "you boast of your success as a proof of your correctness—I do so too; I have a different theory and a very different practice to you—let us compare notes." Dr. Dignity declines the comparison; he is satisfied with his own adoption. Dr. H. Pathy, however, with the zeal of an apostle, urges on his views, and his adversaries at last condescend to hold them up to ridicule, and as the ridicule of the theory is well deserved, they imagine the practice built upon it is equally absurd too. But though foiled in theory, Dr. Pathy still vehemently continues to call for a comparison of his success with that of his adversaries; his clamour leads those who know little of the subject to believe in him, for everybody considers that they are equal to any jury in deciding upon facts, medical as well as common. By-and-bye Dr. C. Sense is called in as umpire, somewhat unwillingly by both parties. After hearing both sides, he says to the old party, "Have you tested sufficiently the truth of your dogma that bleeding, blistering, low diet, and purging are *necessary* in inflammation? Are you certain from carefully conducted



observations, that the mortality is less, and the cure more rapid, in cases so treated than in others of a similar nature which have been let alone or treated on a different plan? Have you ascertained as a reliable fact, that nature can work better when you have reduced her powers than when she remains with a large amount of her pristine vigour? If not, will it not be better to suppose the possibility that the facts you base your treatment on are of a doubtful nature, and that the result you rely on may be improved by a different course?" "Now as to you, Dr. Pathy," Dr. C. Sense remarks, "by your own showing the medicines you trust to are so closely allied to nonentity, that we are compelled to say of the theory that dictates them, 'There's nothing in it.' We do not, however, ignore your facts—we believe you have success—we believe that in a monetary crisis, the state physician who prescribes *confidence* is more likely to see good effects than the one who withdraws the state funds from the bank, and rather encourages a general run. The former might boast that he saved the country by paying in half a farthing to the general funds, but he would meet with few believers."

As it is with a bank so it is with the human system; confidence and quiet will carry it through a crisis, after which, by the ordinary operations of trade and nature, it will recover itself; even a few farthings paid in by a well-known and valued depositor are better than his doing nothing, for they increase confidence, while, on the contrary, a run upon the gold of the one and on the blood of the other, and a steady drain on their other resources, will bring on a ruin, which the most liberal future donations may fail to arrest or obviate.

Dr. Dignity, feeling somewhat soothed by this award, leaves the tribunal, and sets himself earnestly to make the enquiries which the umpire has suggested. He begs the assistance of the latter, and we may suppose the following to be the course he adopts:—He examines the character of the individuals most obnoxious to inflammation—the effect it has upon them—the duration of their illness and the results. He compares one set of statistics with another—looks out for collateral information—interrogates nature more closely—and ends by making a strict and impartial examination into the value of the remedies which are most in vogue, calling witnesses to character from every possible source.

When all this investigation is over, Dr. Dignity will make a profound bow to Dr. H. Pathy, and will say, "Sir, I thank you; there is an old saying, 'Fas est ab hoste doceri,'—you have taught me a lesson, it was needed!—you have introduced me to Dr. C. Sense. I would fain return the compliment: let me recommend you to cul-

tivate Dr. C. Sense's acquaintance, it is worth having ; you clearly require a mentor, take him for your guide, you then will drop your theory and modify your practice ; my son shall marry your daughter, and in the next generation our feud will be extinct."

Putting metaphor aside, we commence our enquiry into inflammation generally. In doing so, we premise that we argue from generalities not from exceptions ; we do not mean to say that our remarks are absolutely and universally true, but that they are so in ninety-nine cases out of the hundred, we hold that the ninety-nine cases should establish the law rather than the hundreth. In all the plans of treatment we shall review, we shall take the duration of the illness and the subsequent condition of the patient as regards health as the standard of comparison ; for it is clear that if a disease is treated on one plan in such a way, that though its worst symptoms are early cured it remains for weeks, and ultimately ends in confirmed debility, that the treatment is not so satisfactory as the one which eventuates in a perfect cure in a fortnight. It is not satisfactory to a doctor to cure the complaint and kill the patient, for, in spite of Molière's dictum, we do consider it better that he shall die of his disease than from our interference.

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## CHAPTER II.

WHAT IS THE CONDITION OF INDIVIDUALS MOST PRONE TO  
INFLAMMATION ?

As we are making an independent enquiry, we do not answer this question by a reference to medical authorities, but we turn to Hospital, Dispensary, Parish, and Private Practice,—this gives us a wide field of experience. We find that Inflammatory Diseases are common in the poverty-stricken and miserable inhabitants of courts and alleys,—in the children of strumous, consumptive, and syphilitic parents; and that it is intractable and destructive according to the previous depressing agencies to which the victim has been exposed. Thus we find water in the head or acute inflammation of the brain, common amongst strumous children : ophthalmia is equally common in the same class. Bronchitis early attacks those of consumptive tendency ; pneumonia carries off those who have been brought low by scarlatina or measles ; the same disease is a frequent harbinger of phthisis ; pleurisy is frequent in the tubercular diathesis ; and it is rare to find quinsey in an individual whose constitution is untainted. In the same way we recognize peritonitis as a consequence of the strumous diathesis in some instances, and as resulting from the imbibition of the erysipelatous poison in others, a poison now recognized as of a peculiarly depressing character. Typhus rarely ends without some local inflammation, and the victims of scarlet fever suffer from inflammations of the severest types. Small pox terminates frequently in destructive pneumonia ; malaria produces inflammation of the cœcum, colon and liver. Phlegmons are the result of long anxiety, watching and fatigue, and carbuncle is often the harbinger of general decay. Morbid poisons do not affect the system until the vital force has been overcome ; they affect chiefly those who are the victims of hereditary or acquired debility ; in fine, those who are the weakest, constitutionally, are the most obnoxious to inflammations.

Again, when inflammation comes on in a man hitherto strong, it is either the result of direct violence which has produced severe injury, and consequent local diminution of vital power, or it supervenes upon some depressing cause acting generally, and others acting locally. Thus, I have seen a man suffer from pneumonia, from the effects of

a long racing match against time, followed by subsequent sauntering in the cold air on a rainy day. The fatigue and chill reduced the vital powers generally—the excessive use of the lungs injured for a time their nutrition; *pneumonia* followed, and in its wake, *acute consumption*. A treatment, however, was employed, in accordance with the views I shall advocate by-and-bye, and the man recovered perfectly, though with great difficulty.

These considerations all tend to show us what experience so amply bears out—that weakly people are very liable to inflammation. We next interrogate the strong, the healthy, the well-fed; we find that in them, inflammation is most rare. It is true indeed that every now and then we meet with a youth who has severe phlegmonous inflammation, and abscess from an indulgence in cayenne pepper and other heating spices. It is true that we may have gouty inflammation in a wine bibber and a free liver; but still we know that the individuals in whom these occurrences take place are not in a state of *perfect* health. They have modified in someway, that relation between the blood and the organs which is necessary to perfect health, and are, for a time, though in a different manner, the victims of deteriorated vitality; putting aside these exceptions, we recognize as a rule, that inflammation is rare in the healthy and well fed.

Leaving the human species for a moment let us examine whether we can find any facts to aid us amongst the lower animals. Unquestionably we do, for we see glanders or inflammation of the nostrils, &c., produced by excessive overcrowding, and other depressing agencies in the horse, just as typhus, ophthalmia, bronchitis, quinsey, and the like may be produced in man under similar circumstances. Talking on this subject with a medical friend, he told the following anecdote:—"I at one time," said he, "found my horses constantly laid up with one or other disease, mostly inflammation, and they always looked out of condition, for I was obliged to work them very hard. One day an old "Vet." said, "Doctor, you must be paying a good sum to your veterinary surgeon every year"—"Yes, I am; I rarely pay him less than twenty pounds," was the reply. "I'll tell you how to save it," rejoined the old one; "give your horses twenty pounds worth more oats in a year;" "I took his advice," he added, "and now my horses are never ill, and never out of condition." What is true of a horse is equally true of a man; the worse he is fed, and the more he is worked, the more liable he is to inflammation, and to every other kind of disease. We next consult the Hospital Register, and find that bronchitis is always more prevalent in cold and moist weather than in warm and dry, and attacks poor old men in preference to the young and robust. We know from



our own feelings that the cold, &c., depresses the circulating power, and we can readily see from experience, that age has not the vital force of youth.

From a careful collection of all these considerations and facts, we end our first chapter with the conclusion that inflammation is infinitely more common in the weak than in the strong. The corollaries to be deduced from this theorem are numerous, but we must be content to pass them by for the present.

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## CHAPTER III.

IF THE OCCURRENCE OF INFLAMMATION AS A GENERAL RULE IS FOSTERED BY DEBILITY, WE MUST NEXT ENQUIRE WHETHER THE PROCESS ITSELF HAS A TENDENCY TO RESTORE THE BODY TO A HEALTHY CONDITION, OR TO DEPRECIATE ITS VITALITY STILL FARTHER.

At the outset of this enquiry we have our attention rivetted on the word itself—Inflammation; what does it mean? We have pinned our faith sufficiently upon the doctrines promulgated by the chemists as to believe that our bodies are in reality undergoing a process of combustion, similar in kind, though infinitely less in degree, to the combustion of coal and wood in our fires. Now the idea of combustion implies consumption of fuel, and increased combustion, increased consumption. The word inflammation implies combustion, to say the least of it. It does not require a mathematical education to know that if additional combustion be added to what is already going on, the consumption of fuel will be necessarily increased. Increased combustion implies increased heat, and *vice versa*. Now we know that if combustion be always going on without fresh supplies of combustibles, the fire will ultimately go out. We know that the fire (without supply) will go out the sooner, in proportion to the intensity of the combustion. We know that under ordinary circumstances our food keeps up the combustible supply for the body, and that the fire and its food being duly balanced, the heat is continuously kept up; but if the combustion is increased in intensity, and the supply of fuel diminished, it follows that the fire threatens to go out early.

These considerations naturally suggest a number of enquiries, *e. g.*, is the natural or ordinary combustion (or *eremacausis* as Liebig calls it) suspended during the existence of inflammation?

Is there evidence of increased combustion, and of increased consumption of corporeal fuel?

It is clear that if the combustion has been greater than usual, the body will have decreased in weight, or something analogous thereto, unless the supply of food, &c., has been greater than usual. If not exceeding the average, the body will remain much as usual, the quantity of food being constant.

The condition then of the body during and subsequently to the attack of inflammation will help us to determine whether the disease is likely to improve the constitution, or to deteriorate it still farther.

A reference to experience shows us that in inflammation and in inflammatory fever there are increase of heat, loss of appetite, and a positive diminution of weight and strength. There is then reason from analogy to believe that inflammation is in reality, as its name implies, a more rapid burning up of the body, or some of its parts, than takes place in health. It is out of the question dogmatically to assert, with these facts before us, that the process can be one calculated to promote the restoration of the body to health. We do not, however, content ourselves with this reasoning alone: we endeavour to drive it still farther. If it be true that inflammation involves a more rapid burning up of the body than usual, we ought to be able to find some analogy between its effects and those of common starvation, in which the combustion exceeds the supply of combustibles, and where, in reality, we have a state of things resembling, in more ways than one, that accompanying the disease in question. We turn then to the blood; and knowing that the chemists have diligently examined the state of that fluid under a variety of conditions, we tabulate their results. These we reserve for a fresh chapter, concluding the present one with a reference to the authority of Paget. We find him remarking, page 339, vol. 1,—“All the changes I shall have to describe are characteristic of defect of the normal nutrition in the parts; they are examples of local death, or of some of the varieties of degeneration, modified, and peculiarly accelerated by the circumstances in which they occur. The degenerations are observed most evidently in the process of softening of inflamed parts.” Again,—“The degeneration which would be progressive in the healthy state, but which would then be unobserved, being constantly repaired, is still progressive in the inflamed state of the part, and is the more rapid because of the suspension or impairment of the proper conditions of nutrition.”

We end Chapter three, then, with a still farther development of the truth unfolded dimly in Chapter second, viz., that inflammation not only is one of the results of debility and diminished nutrition, but that, when present, it has a direct tendency to increase the debility, by the more rapid consumption of the tissues, and by preventing the possibility of new supplies being taken to repair the increased waste.

## CHAPTER IV.

THE CONDITION OF THE BLOOD IN CASES OF INFLAMMATION AND  
OTHER DISEASES, ETC.

THE idea of inflammation being an excessive and unusually rapid consumption of animal fuel, necessarily involves a comparison with phthisis and other diseases, in which there is a waste of tissue, and with excessive fatigue or starvation—in all we have a diminution of tissue, and a greater amount of combustion than of supply. They differ from inflammation in degree, but not in kind. They involve a slow process of decay; inflammation a rapid one. Unable for ourselves, as physicians, to analyse the blood, we turn to the report of the chemists, who aim at accuracy, and have no particular medical doctrine to uphold.

We find them reporting, and I quote from analyses to be found in the few first volumes of "Ranking's Abstract of the Medical Sciences," where there are reprints from Simon's, Andral and Gavarret's, Becquerel's, Rodier's, and Beclard's works—

1. That there is a larger proportion of fibrine in venous than in arterial blood.

2. That the quantity of fibrine is augmented at least to 90 per cent. by fasting, while the quantity of red particles are diminished from the same cause, though not to a corresponding degree. During old age and great weakness the fibrine is found to be increased 200 per cent.

After carefully tabulating the results we find that increase of fibrine is invariably attended with a diminution of blood globules, and arranging the diseases according to the increase in the amount of fibrine, we have the following very instructive list:—

In a case of leucocythemia in an old man (reported in Bennett's book) treated with calomel, the fibrine was found to be 1100 per cent. in excess! In one case of cancer, with intense anæmia, it was 700 per cent. in excess. Its average in cancer was 600 per cent.; the red globules was reduced to 74 per cent. In a case of phthisis the excess was 580 per cent., but it was reduced to 250 by cod liver oil. The average excess was 300

	Excess of fibrine.	Blood globules reduced.
Acute Rheumatism.....	190 to 550 per cent.....	30 per cent.
Pneumonia .....	500 „ .....	80 „
Bright's disease .....	450 „ .....	53 „
Cholera .....	440 „ .....	0 „
Glanders.....	400 „ .....	10 „
Bronchitis .....	300 „ .....	30 „
Infantile Convulsions.....	250 „ .....	25 „
Scarlatina .....	240 „ .....	0 „
Sea Scurvy .....	240 „ .....	50 „
Leucocythemia generally..	230 „ .....	30 „
Hemiplegia .....	200 „ .....	„
Typhus .....	150 „ .....	„
Erysipelas .....	150 „ .....	25 „
Quinsey .....	125 „ .....	„
Lead Cachexy.....	120 „ .....	70 „
Pleurisy .....	100 „ .....	„
Puerperal Convulsions.....	100 „ .....	„
Puerperal Phlebitis.....	90 „ .....	40 „
Peritonitis .....	90 „ .....	40 „
Pregnancy .....	90 „ .....	„
Spinal Irritation.....	90 „ .....	„
Variola .....	80 „ .....	„
Chlorosis.....	75 „ .....	80 „
Disease of Spinal Cord ...	70 „ .....	„

Variation compatible with apparent health, 60 per cent.

If this table be of any value it necessarily leads us to the conclusion that in some way or other pneumonia and rheumatic fever are allied to phthisis and other diseases, whose chief characters are excessive debility. It is evident from experience that the connexion is not in their symptoms; and it is difficult to see any other, than that there is in all an unusually rapid combustion with deficiency of supply.

If there be any truth in this idea, it will not be difficult to devise an inductive experiment. If it be true that pneumonia and acute rheumatism are diseases accompanied by excessive waste of tissue, and consequent debility, if we can increase the waste and debility still farther, we shall augment the gravity of the disease, and increase its mortality. We find accounts of this experiment in authors who, taking another view of those complaints, have advocated bleeding and other



powerful depressing agents. The result is, that large venesection prolongs the duration of acute rheumatism, and makes the supervention of cardiac inflammation fearfully certain, and a similar treatment in pneumonia generally gives a mortality of thirty per cent., against a mortality of six or seven per cent. under a milder plan !

Again, if inflammation mean a more rapid combustion of the body, and if that combustion be marked by an increase of fibrine in the blood, it will follow that the tendency of a direct abstraction of a large quantity of the combustible material, will practically have the same effect as if that material had been otherwise consumed. We have experiments ready made to our hand by those who have adopted bleeding as a part of their battery against disease. It is found that bleeding in any large quantity has the effect of increasing the fibrine in the blood, in the same proportion, or thereabouts, as it would have been increased by three or four additional days of disease.

If there be any trust then to be placed in the teachings of chemistry, we can only compare fibrine to the *ashes* of the furnace of normal and inflammatory combustion, and not to *fuel* as used to be the fashion in days not long gone by.

We do this the more readily, because in diseases like ophthalmia, boils, and others, where the inflammation is limited, the excess of fibrine is not greater than is commensurate with apparent health.

Analysis of the blood, therefore, endorses the conclusion which other considerations have led us to draw, that inflammation is essentially a debilitating process, and that when suffering from it the individual may be compared to one who has "consumption."

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Dr. Dignity, at this point of the enquiry, began to get extremely fidgetty, and seeing how the current was setting, requested, with a somewhat confident air, that Dr. Common Sense would be kind enough to explain how it was that the pulse should so often be hard, the heart's action vigorous, and the general excitement great, in cases of genuine inflammation. "Here, at any rate," he continued, "are proofs of strength, yet you want me to believe that they are only marks of weakness." "My dear sir," blandly replied Dr. Sense, "you surely will allow that the fiercer your study fire burns, the greater the combustion of coal, and the sooner it will be 'out' unless you put on more fuel. The combustion is more rapid, because, from some circumstance or other, there is an increased draught of air, not because the coals themselves have suddenly become altered in their chemical constitution.

I may borrow another simile from your fire: the hotter the coal the more rapidly it becomes incandescent, and, in like manner, the nearer the human body approaches in its condition to the inflammatory state, the more rapid and severe will be its combustion when once lighted up. In other words, the more rapidly your patient is consuming under his ordinary state, the more prone he is, as a general rule, to consume in an extraordinary manner. But we must not run away from the point you have started; let us quietly examine the pulse as you suggest."

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## CHAPTER V.

## THE PULSE IN INFLAMMATION.

BEFORE we can understand the value of the pulse in inflammation, we must study it in comparative health, and in non-inflammatory diseases. We find, as a general rule, that it is an indication of the power of the heart. This organ is a contractile muscle, resembling in its minute structure the deltoid, or any other muscle of animal life. In the main it obeys the same laws as they do, except that its contractions are rhythmical, and not subordinate to the will. It is subject, as are other muscles, to variations of its contractile power; and we rarely, if ever, have exhaustion in the muscular system generally, without similar exhaustion in the heart. We find when an individual is perfectly healthy, that the heart contracts a certain number of times per minute, say seventy; but that this is subject to some variation, it is slower after a person has been resting and sleeping in the recumbent posture, for then it has had a period of comparative repose, and has recruited its power. It increases a beat or two on the person sitting up, three or four when he stands up. Its frequency increases towards night, and is somewhat proportioned to the day's fatigue. We see in all this the natural result of muscular exertion. The heart has more work to do in the erect than the recumbent posture, and it effects it by increasing the number of its beats; it has still the same work to do at night as in the morning, but it is not quite as strong to do it, so it again increases its beats, making up in frequency for what it loses in force. We see this same thing in disease, whatever reduces the power of the muscular system in general, or the heart in particular, increases the frequency of the pulse. This is not always very marked when the patient is habitually in the recumbent posture, but it is very marked when he assumes the semi-erect or erect position. Thus, in the convalescence from typhus, a pulse of seventy in bed will become one hundred and fifty on rising; and in many instances the heart is absolutely too weak to propel the blood to the head—the patient faints or dies outright. A rapid pulse is common in individuals comparatively healthy, whose muscular system is nevertheless feeble, and also in women and children. Loss of blood or any direct loss of vital



power is attended almost invariably with great rapidity of pulse. Great rapidity of pulse attends, moreover, those diseases which overpower and depress the vital energies, as typhus, erysipelas, phthisis, &c. As a general rule, then, we may state, that rapidity of pulse is indicative of debility of the heart.

There is, however, another condition of pulse which demands our attention, and requires explanation—it is occasionally *hard* during the early stage of inflammation. The importance of this condition can scarcely be over-estimated, when we have our most distinguished author authoritatively declaring that “hardness of the pulse is our lawful warrant for bleeding” in inflammation, and “its disappearance a token that the bleeding has been carried far enough.” What *does* hardness of the pulse really mean? Like the author referred to above, we do not now speak of those exceptional conditions of the artery, by which the pulse is rendered habitually hard, but only of hardness during inflammatory or other disease.

The best opportunity a student has of ascertaining the cause of a hard pulse is, when one hand alone is the seat of gouty, and possibly of other inflammation. At the wrist on the diseased side the pulse will be hard and, as it is called by some, “inflammatory”—at the other side it will be soft and easily compressible. I once had a patient under my care in whom this phenomenon lasted for three weeks. The pulse on one side was not only harder to the feel, but the artery was much larger to the eye, and its beats more curiously distinct than usual. On the other side, the pulse was soft and easily compressible, and the arterial pulsation was not recognizable to the eye at all. The patient was much “out of condition,” and required active tonics.

It is worth while to linger over this case, and consider the points it involves. The inflamed hand was red, swollen, and painful, and this necessarily implied that it contained an increased amount of blood. This blood must either have been effused, as in ecchymosis—which it was not; or else be contained in new vessels—which we have no warrant for believing; or in the old vessels greatly distended, which analogy and microscopic investigation show us to be the most probable idea. Whichever solution we choose to adopt, it is evident, from the ordinary laws of hydrostatics, that there must be a difficulty in driving the blood through the part at the ordinary rate of health. This involves either a diminished current, or an equal current produced by supplemental power, or a condition of things between the two. Practically, it is a matter of no consequence how we solve the question, for we must, in any case, come to the conclusion, that the hard pulse

in the arteries is due to some obstruction in the capillaries and increased force to overcome it.

If there be any truth in this, it will follow that the pulse will, almost invariably, be hard in those cases in which the capillary obstruction is excessive; and where the inflammation is general, we have not long to search before we find the truth of the deduction; for when we turn to the symptoms of small pox, we find that one of the very prominent ones is a *hard* and frequent pulse. We have a *hard* pulse equally in remittent fever, occasionally in typhus, frequently in scarlatina, often in measles, sometimes in erysipelas, mostly in acute rheumatism. Now, in all of these diseases, the experience of our most acute observers has deprecated the use of the lancet! Even the distinguished authority (Dr. Watson), who says—"As the hardness of the pulse is our lawful warrant for general bleedings," &c., says subsequently "that small pox sets in with a hard and frequent pulse," &c.; and when speaking of reducing the number of pustules—*i. e.* the extent of the inflammation by venesection, remarks emphatically, "You cannot ensure this effect by blood letting." Why, then, is it asserted that hardness of the pulse is to be the warrant for bleeding in one inflammation, when in another it is religiously eschewed as a most dangerous practice?

All are now willing to allow that, in eruptive fevers, venesection, though it does apparently present good, does positive harm in the long run. Why not apply the same consideration to inflammation of a less extensive character? Why not believe that, as the violence of the symptoms of variola may give way without loss of blood, so may the violence of those of pneumonia pass away in like manner?

Surely, if there is any common sense in medical deductions, the reasoning that applies to an extensive inflammation like that of small pox applies with equal force to a similar complaint, when it implicates so small a structure as the conjunctiva, the testis, the pericardium, or the trachea!

We will not, however, pursue the subject of bleeding at present, tempting as it is. We prefer to ask the reason why the pulse is not always *hard* in inflammation? The answer is instructive—it is hard only when the inflammation is sudden, the obstruction to the circulation considerable, and the vigour of the heart little abated. The hardness disappears as soon as the heart loses its power, or the inflamed part loses its cohesiveness, or its resisting or obstructing power.

We conclude, then, that a frequent pulse indicates a weak heart, that a hard pulse indicates obstructed circulation. We find a hard and

frequent pulse in small pox, and we find that the physician now-a-days does not draw the same deductions from it as he does from hardness in pneumonia. We are right, therefore, in enunciating that here at least is one flaw in the arguments commonly promulgated to justify venesection and other depressing remedies in inflammation whenever the pulse is hard and fast.

At this stage of the argument Dr. Dignity began to utter some platitudes respecting the wide difference there was between pneumonia and small pox, and that the reasoning applicable to one did not suit the other; that no one in his senses ever had, or ever could bleed in small pox simply because the pulse was hard; that no one, except he was out of his senses, would neglect to bleed in pneumonia, if the pulse was hard. Dr. Sense then requested him to turn to historical documents, and he then found that Dr. J. Armstrong and others did bleed in small pox, and that at one time the practice was almost universal. That doctors also did bleed for erysipelas, scarlatina, measles, typhus, and a variety of other diseases in which the pulse was hard. That the majority of practitioners had now abandoned the lancet in these cases. That a large number of physicians have eschewed bleeding in pneumonia, &c., and that at one time bleeding was almost universally adopted in hæmoptysis, whenever the pulse was hard, with manifest encouragement to the occurrence of consumption. Dr. Dignity, however, being still resolved to hold out for the adoption of venesection in so important a disease as inflammation of the lungs, Dr. Sense reminded him that the investigation they had undertaken was in consequence of statistics having proved that indiscriminate bleeding in pneumonia was as prejudicial as bleeding in small pox, and that a greater number of persons recovered from the disease when let alone than when meddled with.

Giving up pneumonia, Dr. Dignity then pleaded hard for the use of the lancet in acute rheumatism, but on being referred to Dr. Fuller's recent work, the experience of Drs. Bouillaud and MacLeod, who bled, "coup sur coup," and some short notices on the same subject in weekly journals, to the effect that bleeding made rheumatism more formidable, and that a quiet treatment mitigated its severity, he gave way with manifest reluctance. Though foiled for a short period he soon renewed the argument, but this time he assumed new ground. Throwing himself back in his chair, he said, "If I understand your views, Dr. Sense, you assume that the process of inflammation is a more rapid burning up of the tissue affected than what would take place under ordinary circumstances." "Exactly so," was the quiet reply. "And yet you deprecate bleeding, which diminishes the fuel



of the fire?" "I do." "Then," returned Dr. Dignity triumphantly, "how are you to put the fire out at all?" "The question is very apposite," said Dr. Sense, "and I must answer it in a roundabout way. In the first place, I would remark that you do not want to put the fire out altogether, for a slow process of combustion is always going on in health; you only wish to moderate it: and in the second, that the essential characteristics of the two different schools are to be seen in the method they employ for this end. The old school attempted to reduce the fire of inflammation by abstracting fuel exclusively: the new school attempts to check it by leaving it comparatively alone for a time. The plan of the former was attended, in the first stage, with striking results; the intensity of the fire was checked wonderfully, but soon after it began to languish bodily, and threatened to be extinguished altogether. This, as I remarked above, is not the object of the physician, he has to keep alive the living flame—the ordinary fire of life,—and to do so he was at last assiduous in nursing the small embers left; but, as you know, it is not easy to rekindle a fire from dying ashes, and it too often happened that the abstraction of fuel ended in the blackness of darkness. The new school allow the fierceness of the fire to expend itself in a great degree; and, according to its intensity or decadence, employ checking or encouraging means. They do not abstract more fuel than they can possibly help, and they do not wait till the embers are dying before they administer a fresh supply. Nay, I may even say, taking erysipelas and some other low inflammations as a type, that the physician attempts to check the fire by throwing on more coal, sufficient to smother it. Wine and powerful tonics will, we know, cure erysipelas as signally as they would aggravate acute gout."

"Well," said Dr. Dignity, somewhat pettishly, "I wish you would leave metaphor, and tell me how you would treat this inflammation which you are so fond of comparing to a fire." "Patience, my dear sir," says Dr. Sense, "We do not put out all fires in the same way. If a candle wick is on fire we blow it out or place an extinguisher over it. If a chimney is on fire we put sulphur or water on the ashes in the grate or stop up the top or bottom of the chimney. If a ship is on fire we try to reach and throw overboard the burning articles, or we batter down the hatches and pump in water, steam, or carbonic acid if we can. In like manner we have more methods than one for the arrest and cure of inflammation. Sometimes it may be necessary to reduce the fuel rapidly by the abstraction of blood in large quantities; at another we only abstract it from the part where the flame is the hottest; at another we throw cold water upon it; at another we diminish the

supply of air; at another, as I just mentioned, we smother it with fresh fuel. We do not treat gout as we do bronchitis, or small pox as we would a phlegmon. Each particular case stands upon its own merits; we have no rules which, like the bed of Procrustes, is to serve as the measure for every individual. It is true that the means at our command are essentially few, though numerically great, and therefore our rules are comparatively simple." "Well, that is just the point I want to arrive at," said Dr. Dignity, "I wish you would not beat about the bush so much, but come at once to the main business before us." "I must still crave your patience awhile longer," said Dr. Sense, "while I draw your attention to what I conceive to be some very important points connected with our subject. You are of course aware that the word inflammation has been very vaguely used, and you must allow that it would be absurd to continue the investigation into the treatment of a disease whose name is associated with different ideas in our respective minds. Let me illustrate my meaning by an anecdote. I well knew, in my younger days, a gentleman who, when comparatively fresh from the schools, had to attend, in the absence of a friend, a remarkably handsome lady, who had recently suffered from miscarriage attended with great loss of blood. She was going on very satisfactorily, until one day when she began to complain of a pain at the epigastrium, which both she and her husband considered must necessarily be inflammatory. Taking into estimation all the other symptoms, he assured them that no inflammation existed, and that if the complaint was treated by the usual remedies employed for that disease the patient would die. But his hair was too brown and curly for his opinion to have any weight, and his place was taken by one whose hairs were a warrant for his years and long experience. His dictum was that there was inflammation of a very severe kind, and when he was modestly asked *where*, the young man was told, *in some deep seated part or other!* He went home discussing the symptoms of peritonitis, hepatitis, gastritis, duodenitis, pancreatitis, &c., and wondering how the case was to end. The friend at last returned and relieved his substitute from further attendance, and from him he learned that his forebodings were correct—the patient was treated for inflammation, and was dead at the end of a fortnight from the result of debility. Here it is evident that there was a great looseness in the use of the term, and such as is commonly attended with an equal amount of error in practice; in fact there is too much reason to believe that the word inflammation is by many practitioners used as a sort of refuge for the destitute; when they cannot at once find the cause of a phenomenon, it is so easy to call it inflammation that they yield at once to the temptation." "Well,"

said Dr. Dignity, "is it not better to use a word to our patients that they know, rather than employ one of our learned terms which they do not understand?" "I agree with you to a certain extent," was the reply, "but I must remind you of two things—first, that, now-a-days, people are so desirous of gaining knowledge, that they prefer having a correct rather than a false name given to their complaints, so that they may look it out for themselves in some medical dictionary, and compare the symptoms they have with those the book gives, and the treatment adopted with that recommended; secondly, that if you do call a disease inflammation, you will be expected to treat it as such complaints 'are wont to be treated:' there is a sort of a moral necessity to treat them, not as you consider best, but as the patient does. I once was asked by a merchant, who was for a time a visitor of a hospital, whether such a doctor treated his patient rightly, for there was 'Inflammation' on the man's card, and he was taking a great deal of wine! But, to resume, you know that there is really a difficulty in defining inflammation accurately; you know, too, that different kinds or types of the disease are spoken of—*e. g.*, adhæsive, gouty, suppurative, gangrænous. Let us devote a chapter to these points."

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## CHAPTER VI.

## ON CERTAIN FORMS OF INFLAMMATION.

WE are all of us familiar with the name of bronchitis, and all agree in calling it inflammation of the bronchial mucous membrane. We are equally familiar with common catarrh, which is attended with inflammation of the nasal passages, the tonsils, and occasionally the internal ear. We see it often accompanied by a transient ophthalmia, dyspepsia, and diarrhœa; it commonly, too, affects the larger and often the smaller bronchi. Are these specimens of genuine inflammation, in reality? I will not raise your antagonism by saying they are not, but I will try and suggest a new idea to you respecting them. Did you ever suffer from chilblains, or have you had any patients who have done so, and consulted you? Do you consider these as inflammatory? I suppose not—you incline to consider them as specimens of congestion. Now, I will tell you something about them; they are uncommon in those who are constitutionally robust—they are frequent in the delicate. An individual from both classes will go a long walk or a long drive together, on a cold day, and come in thoroughly starved, with their feet and hands “perished.” A blazing fire attracts them; they remove shoes and gloves and go to warm themselves. The one will escape with impunity, or only have one chilblain, the other will have his fingers and toes covered with them. The rationale is obvious: the cold has contracted the capillaries, and driven all the blood from them; it has done more, it has for a time deteriorated the condition of their elastic walls. If the circulation were to be restored slowly these would gradually regain their power, and no harm would result; but when it is restored with a sudden impulse, the vessels give way and become distended to a great extent. The weakly person is attacked earlier than the strong, because he has less vitality, and because it is earlier overpowered by the cold; but if the strong suffers a greater prolongation of cold than the weak, and then exposes himself to the same influences, he will be affected in the same manner. You must bear in mind that this distention of the vessels is similar to what is described in inflammation. There is pain or itching, swelling, heat, and redness; yet a chilblain does not suppurate, nor is it relieved or cured by the local abstraction of blood. It is generally cured by powerful stimulants, and is for a time relieved by the influence of cold.



A chilblain is marked by an afflux of blood, and nothing farther, because it is situated in a part in which no perceptible secretion is formed. An afflux of blood, however, to certain other organs, produces more marked effects; thus, an afflux of blood to the eye produces lacrymation; to the parotids, "watering" of the mouth; to the nostrils, sternutation and increased mucous discharge. A flow of blood to the mamma produces a secretion of milk, as well in the virgin as in the nurse. A prolonged erection gives rise to a copious secretion of urethral mucus, and a flow of blood to the vagina gives rise to a considerable discharge. In none of the cases referred to is the increased secretion due to an inflammatory condition; but there is this point connected with them of great significance, that if the individual is of delicate constitution, the blood vessels temporarily distended will not readily return to a healthy state—they remain somewhat in a chilblain condition; thus prolonged excitement will produce a constant weeping from the urethra of the male, and habitual leucorrhœa in the female. In the latter, too, we have, from similar causes, the ordinary catamenial period doubled in frequency of occurrence, in duration, or in both.

But the analogy between some of these discharges and chilblains is most marked in ordinary catarrh. The cause of this is precisely the same (in an immense number of cases) as that of chilblain. An individual goes out of doors, about his ordinary business, on a cold, damp, winter's day; he, by-and-bye, becomes thoroughly starved; his nose is cold, and drops moisture, and he is habitually inhaling cold air; at last his day's work is over, and he rushes home; he flies to his hot and dry sitting room, and finds he has "taken cold;" in reality he has produced a chilblain in his nasal membrane; the result is an inordinate distension of the vessels, a closure of the passage, and a profuse discharge; and when we consider that those who are most liable to chilblain, are those in whom catarrh is the most frequent and most durable, the comparison receives the more weight.

But the resemblance becomes closer when we compare the effects of curative or other agents on catarrh and chilblain. We administer stimulants internally in catarrh, as we do externally in chilblain, and as soon as the vessels feel their influence the distention is reduced, and the discharge ceases for the time. So, in like manner, cold will reduce the distended condition of the nasal vessels and suspend their discharge, just as it reduces the swelling and itching of the chilblain; and, finally, we may have ulceration in the fauces in severe catarrh, just as we have ulceration in a chilblain; a condition of things which requires powerful stimulation for the cure.

Again, we are familiar with the swelled lip of struma, and never



speak of it as inflammatory; but when the nasal or bronchial mucous membrane are the seat of a similar distention, we are apt to speak of it as inflammatory, simply because it is attended with profuse secretion! Surely we are bound to show that the condition of the bronchi differs from the condition of the nostrils in scarlatina and in scrofula, before we can say that the two are essentially distinct, and require diametrically opposite treatment. We know that the discharge in the two latter cases is relieved by the free use of stimulants, and, as far as my experience has gone, it is equally so in bronchitis.

But there is another point of even greater importance than this: the question, What determines the type of the inflammation when it is present? The only trustworthy information we get upon this point is from experience and experiment. Experience tells us that the more prostrate the individual, whether from a constitutional or an acquired taint, the greater is the propensity to purulent or gangrænous inflammation, in other words, the weaker the patient the more destructive is the disease; and that the stronger the person affected, the more severe are the symptoms, but the less prolonged the convalescence, and the more complete the recovery.

Experiment tells us the same thing. Mr. Paget informs us that he applied blisters to some fifty patients, ranging from severe illness to absolute health, and that the serum produced varied materially: in the strong it was nearly pure liquor sanguinis; in the weak it was full of colourless corpuscles, which are first cousins to tubercle and pus.

The bearing of this is of the utmost importance, and the truth it enwraps is of infinitely greater significance than the simple existence of hardness in the pulse; for it stands to reason that if your patient has been originally weak, and is now still farther debilitated by inflammation, and has, in consequence, a tendency to rapid disintegration, or conversion of one or more organs into pus, it is not judicious to promote that disintegration, &c., still farther. While, on the other hand, if you know your patient has the vital powers impaired only by his complaint, you may safely reduce them, if such a measure should be imperatively called for.

It has, however, a still farther significance, for experience shows that it is in the latter class that we have most commonly hardness of the pulse, while in the former we have inflammation running its course without any hardness whatever, the pulse being uniformly soft and yielding. Whenever, then we change by our treatment, the character of the pulse, from the first to the last condition, *there is danger of the adhesive being converted into purulent or destructive inflammation.*

The remedies employed to effect that change, ought then to be used

with a definite end, and as soon as that end is acquired they ought to be abandoned.

Dr. Dignity, seeing the drift of these observations, remarked, "that he had, over and over again, treated inflammatory diseases with venesection, calomel, and opium or antimony, until they died or else got well, and that the proportion of recoveries so greatly exceeded the deaths that he was quite satisfied with the success of the plan. His routine practice was to bleed when the pulse was hard, and when it was soft he gave mercury or antimony, until the inflammation was entirely removed; and he cured as many as most people." "Bnt, doctor," was the rejoinder, "what time do your patients take for recovery?" "Oh, I never think of that, provided they do get well; you know one case differs from another, and you can't say that the duration of an illness ought to be considered a mark of deficient or consummate skill." "Excuse me, Dr. Dignity, bnt I do not agree with you there; I say that if, taking one case with another, the average duration of your treatment is five or six weeks, and that the average of another who adopts a different plan is two or three weeks, it is clear that his practice is more successful, though to be sure it is less remunerative than your own. I lately heard of one instance in which two doctors of good repute had a patient twelve months under their care, during which time she steadily got worse. They were superseded by a colleague of Dr. H. Pathy, and the patient got well in a few weeks. Now I will allow that if they had continued in attendance they might ultimately have changed their treatment, and so have been at last successful; but I hold that the man who did no mischief was superior to the men who were always doing it, though with the best intention. Besides, I must again remind you that patients do get well in large numbers and with great rapidity, who are neither treated with blood-letting, mercury, or antimony; unless then you can show that your success is far greater than theirs, you must allow that your remedies are needless, and as they are disagreeable, they might as well be let alone for the sake of the patient's comfort."

"Oh, but," said Dr. Dignity, "I can find you a hundred people who habitually bleed in pneumonia and other inflammations, and they are all equally well satisfied with its efficacy, and they cannot all be wrong!" "And I, too," said Dr. Sense, "can find you two hundred who never bleed, and who are equally pleased with the results." "Well, again," rejoins Dr. Dignity, "remember I want to hear what you propose; I suspect you are in reality bitten by the new mania—you are going to advocate the dogma '*similia similibus curantur*,' and are going to try and cure inflammation by cayenne pepper, mustard, brandy, wine, and

cloves. If a man has pneumonia you will make him inhale phosphorus, and if he has laryngitis will apply croton oil to the fauces."

"Pardon me," said Dr. Sense, "you must not impute to me principles that I do not hold: I have been arguing up to this time against the views which you have adopted, but I do not necessarily patronize those of a diametrically opposite tendency. It is, alas, too true from your experience of others, that you have a right to suspect me, for medical minds are very apt to resemble a pendulum. After the time of Hippocrates and Galen they were at rest for a long period; but in the course of time a knock was given by one sect which sent it up on one side, it then fell back again and rose to as great a height on the other side, and then went on vibrating backwards and forwards. Under the influence of profuse druggism and heroic activity of treatment it rises high on one side of the truth, but immediately after falls again and rises as high on the opposite side, under the influence of globulism and *'laissez aller.'* The individual resembles the species, and, unless the utmost care is taken, the man who abandons the lancet takes up with wine, and he who casts off calomel and jalap takes up with sugar of milk and brown bread. It has ever been my own wish to steer clear of these errors of judgment, and nothing that I have said shows that I have any sympathy with the practice of the disciples of Hahnemann, or with the principle that guides them in their choice of what by courtesy I must designate as drugs, although they are strictly nonentities '*nominis umbra*' and nothing else."

Nothing that I have said justifies the idea that I should treat drunkenness by brandy, sickness by antimony, or purging by gamboge. I do not necessarily side with your adversaries, because I do not choose to fight under your banners. Nature, like our country, wants young and ardent soldiers, whose minds are as active as their bodies, not antiquated generals and captains scarcely in advance of Turenne. We have seen many of such classes, who have doggedly preferred the musket to the rifle, and scouted the idea of monster mortars; and there is a fear, too, lest by hugging our notions too closely, *we* may be accused of not being in advance of Hippocrates. You cannot deny that the new system you decry is extremely popular, and you are aware that those who have taken up with it rarely return to the old one. "Oh now," said Dr. Dignity, "you surely do not mean to argue, as a professional man, that we are to change our doctrine, and take up the lunatic notions of Hahnemann, because our patients prefer globules to pills, and some absurdly infinitesimal dilution of arnica to a fine black draught!" "Let me remind you," was the quiet reply, "that because you feel obliged to change your own ideas, you are not obliged to take up



those of your adversary. Because you did not know at one time how the juggle of spirit rapping was done, I trust that you did not believe in the account given of it by its practisers; when you were unable to know what was the force used in table turning, I trust that you did not believe in a new force generated for the purpose; but lest you may have been a little guilty here, let me turn to the past. You remember the name of Sir Kenelm Digby. Let me recal to you the condition of surgery in his day. The doctors treated all wounds by granulation, and a long time they often took in the cure. 'Five quarters of a year were Gaul's deep wounds in healing,' says Ossian of one of his heroes, and, whether true or false, the time did not seem outrageous formerly. Sir K. Digby introduced the plan of applying ointments, &c. to the weapon, and leaving the wound to nature. So lovely an absurdity took with the common people, and the wounded soldier soon sided with the new practice, for he preferred clean linen for his wounds to the oil and wine which previously used to be poured into them; possibly you may yourself remember, how, when a child you have been made to put a cut finger into riga balsam, and how salt was used after the cat-o'-nine-tails to a criminal's back, in days not long gone by, and you may remember your delight when some young doctor told your mother to trust to lint and throw the balsam away. So it was with the wounded in days of yore. The surgeons, however, were savage at the innovation—their patients went to old women to be cured by the application of salve to a broken arrow or a dented sword! and what was the more provoking, they were cured in a tenth of the time that the doctors used to take!! The surgeon's occupation was nearly gone, and they had more shaving to do than healing. For years the weapon salve reigned supreme! Its absurdity did not sink it so much as its success raised it, and it sailed majestically for a hundred years in the sea of medical science like a gigantic iceberg. But it was an iceberg after all, and melted away; yet, as the glaciers of which these bergs are composed bring down with them from their original rocky beds, not only huge boulders, but oftentimes valuable jewels, so this, when it dissolved, left a moraine whose worth is acknowledged to the present day. The doctrine of anointing the weapon was a fallacy—a melting iceberg; the practice it involved of healing the wound by the first intention, and forbearing to meddle with or irritate it by medicaments was the jewel it deposited. Of course you see the application. Globulism and the doctrines of Hahnemann are the icebergs whose sides are already melting; the practice of interfering as little as possible with, and never depressing the powers of the human body, is the jewel it bears. The one will disappear, the other will remain behind to be polished and elegantly set; a jewel which

possibly might never have come from the distant mountains of truth had it not been borne down on the icy stream of absurdity! Truly there is many a thing like Shakespeare's toad, the which 'though ugly and venomous bears yet a precious jewel in its head.'

"Let us, however, drop this subject," said Dr. Dignity, "for it is one on which I have not yet schooled myself to speak with patience or to listen with calmness; and let me beg of you to enunciate the principles to which you wish to conduct me." "Certainly," was the reply, "but you must allow me to imitate a guide who leads you up a steep and unfrequented mountain by zig-zags, rather than risk your loss by making a direct ascent. You wish to know my plan, let me try and deduce it from your own: Allow me to ask whether you ever had a boil upon your finger, and another on your face?" "Yes, to be sure I have." "May I ask what you did for the former?" "I poulticed it." "What for?" "Because I was sure that was the best thing." "Did you suffer much?" "Yes, awfully; I did not sleep for three nights." "Why?" "The throbbing pain was so dreadful!" "Did the pain give way at last?" "Yes." "When?" "When the skin gave way and the matter got free exit." "You were then in severe pain for at least three days?" "Yes." "And when you had a boil in your cheek did you suffer in the same way?" "No, I scarcely felt it, it pricked a little just before it came to a head, but that was all." "Then you suppose, I presume, that boils on the face are less painful than boils on the finger?" "No, your'e wrong there, for I had once a boil at the tip of my chin and I suffered quite as much as from the one in my finger." "I do not doubt it." "May I ask if ever you saw a patient suffering from inflammation below the palmar fascia?" "Oh, yes." "Had he any fever?" "Certainly." "Was his pulse hard?" "Yes, very, just at first." "Do you remember what did him good?" "A good bold incision through the fascia." "Excuse my pertinacity; did you ever see a case of erysipelas of the hand, fore-arm, arm, leg, or foot?" "Certainly." "Was the suffering great?" "Yes, very." "And the pulse hard?" "Yes." "What relieved it?" "A good long free incision." "Did that relieve the pain?" "Yes, within a few minutes." "Do you as a practice continue to make incisions after the symptoms of the acute inflammation have subsided, in these cases?" "How you talk. Certainly not." "But though you do not cut again, do you think it advisable to puncture with a lancet, prick with a needle, or suck with a leech?" "Unquestionably not, for the incision gives the necessary relief, and the parts immediately begin to heal under the operation of the ordinary laws of nature." "May I beg that you will not forget the terms of this answer; and permit me to ask you still

further, did you ever know an individual who had a boil on his finger have it lanced as soon as it became painful?" "Yes, I have known such heroes." "Will you tell me the result?" "At the time of the incision there was an increase of pain, as the lancet pressed upon the parts, ere it divided them; there was then a complete relief of suffering." "Of course there was considerable bleeding, but did you notice whether the cut 'gaped?'" "Yes, greatly." "Even though there had been such loss of blood! and did it close again until the part got well?" "No." "Once again let me ask you, could you bear to put your hand down by your side before the boil burst, or was lanced, or broke of itself?" "Oh no, that position aggravated the pain tremendously." "You received then, I presume, some comfort from raising the hand above the head?" "Yes, a great deal." "Did your dinner and wine have any sensible effect?" "Yes, it always made the throbbing pain and feverishness worse." "Now, after the place had burst, or had been lanced, could you bear to hold the hand down—to drink wine and eat beef with comfort?" "Oh yes, perfectly well." "Once again, have you ever seen severe feverish symptoms attending a large phlegmon?" "Yes." "Did they subside after an incision was made?" "Yes." "And the patient got well without farther treatment or trouble, beyond a poultice, ointment, &c.?" "Yes." "Will you allow me another question or two, and I will cease this catechism—" "Did you request any surgical friend to bleed you when you had an inflamed hand?" "Certainly not." "But was not your pulse hard on the affected side?" "Oh I did not care for that." "Did you take calomel, antimony, colchicum or digitalis?" "Certainly not; what would be the use of dosing oneself for such a trumpery thing." "You think, then, that inflammation may really get well of itself, without any medical or surgical interference?" "Oh that's what you are driving at, is it, well I must allow that small inflammations will do so." "But are not inflammations large or small by comparison?—will not for example the vaccine inflammation—or a whitlaw confine one patient to bed with fever and scarcely affect another at all?" "I allow it." "Well, then, if one small inflammation will get well of itself, may we not conclude that another will, which only differs from it a trifle in extent, and scarcely at all in constitutional symptoms?" "I agree, but I am so tired of following your questions and of weighing my own replies, that I would prefer listening as a pupil to the remarks you would make as a lecturer," "Very well, I will then resume the didactic style, and tell you as plainly as I can the deductions I wish to draw."



## CHAPTER VII.

THE BROAD PRINCIPLES APPLICABLE TO DIFFERENT FORMS OF  
INFLAMMATION.

WE have seen that inflammation is a downward step in the process of nutrition; that it is at once a mark and a cause of debility; that it consumes the tissues faster than they would be consumed in the ordinary wear and tear of life; that in the process they become deteriorated in their physical qualities, and consequently are not so capable of performing their natural functions properly. We know, however, that in the onset of the complaint there are occasionally such severe symptoms as to threaten immediate danger, as well as ultimate death; and a wish to relieve suffering, leads us to endeavour to reduce present mischief, in the hope that this may in the end promote permanent good. The main points we have to attend to are the intensity of the fever, and the violence of the pain when present. "I must stop you here," said Dr. Dignity. "You have not included in these points the locality of the inflammation, and you will allow that this must be most cautiously attended to. You would never place pneumonia and orchitis, for example, on the same footing as regards treatment?" "Thank you for the remark," was the reply. "May I ask you in return whether a sovereign is not equal to twenty shillings, whether it is in the pocket of the pedlar or of the millionaire banker? yet it may save the one from ruin, and be only a drop in a bucket to the other. Inflammation then is simply inflammation, whether in the heart or in the great toe, and the principles that apply to it in the one case ought, if they are sound, to apply to it in the other." "I cannot agree with you there," said Dr. Dignity, "for I can scarcely suppose that any one who had to treat inflammation of the brain would treat it as mildly as if it were inflammation of the nostrils, or the pericardium as if it were the scrotum; surely you ought to be more heroic in your treatment of pericarditis than of quinsey." "I will not go aside to controvert your ideas at great length, but I will remind you of a few things which it is well to bear in mind. First, that the old and even the present school do not so much look to the seat of the disease as to the symptoms; secondly, that there is a very homely proverb to the effect that what is sauce for the goose will do for the

gander; and thirdly, I will ask whether you have had much practice amongst poor people? if so, it must often have occurred to you to find your patient half dead; you enquire 'the cause;' '*your medicine!*' how so? It may be you have had to treat diarrhæa, and order an eight ounce mixture, an eighth part of which is to be taken every four hours. The first dose is imbibed; it does good. The patient argues—if an eighth has done me so much good, the whole will cure me. He swallows the whole of what is left, and then is half dead from narcotism! Let me point the last illustration by the question. May we not, and do we not, by pushing the treatment of inflammation too rapidly forward do precisely as these misguided patients? Nay, since I have been spurred up to the task, may I not affirm that venesection, calomel, antimony, '*et hoc genus omne,*' which, like opium, are good in moderation, have been so used in excess as to become poisonous to the unhappy patient? I see that you feel the application, so I will continue as if I had not been interrupted, and repeat that in inflammation the main points to be attended to are the intensity of the fever and the violence of the pain when present, to which I must add, to save myself from captiousness, the vital condition of the individual."

Considering that we have intense fever in typhus, small pox, scarlatina, &c., as well as in phlogoses, we ought not to look to it alone, and yet the majority mentally argue thus—in the aforesaid diseases the inflammation is general over the whole body, and "no wonder that the pulse is hard! But when we have local inflammation, as of the lung, pleura, eye, &c., with the same intense fever and hard pulse, we infer that there is as much mischief concentrated in a small spot as we had in the other instances in a large one; and notwithstanding this, we do not bleed in the former instances, and we do in the latter. Now the fever is an indication of the force with which the blood is impelled to the inflamed organ, and the obstruction it meets with there; and we have seen, from the experiments tried on an inflamed hand, that the greater the impulse of blood, the greater the suffering, and "*vice versa.*" A high state of fever then and a hard pulse indicates, firstly, *resistance*; secondly, *an effort to overcome resistance*. We have seen in erysipelas the fever subside as soon as the resistance has been diminished or overcome by a large incision: in like manner it will cease in *inflammation of internal organs, when the resistance is in any way destroyed*. The fever may be reduced equally by *diminishing the force with which the blood is propelled*. We know the influence of this in gout and other inflammations in the extremities, where the limb can be raised in such a manner as to facilitate the exit and discourage the ingress of the



sanguine stream ; but it is clear that if we habitually prefer to weaken the impulse, rather than to diminish the resistance, we shall materially curtail the future powers available for repairing damages. If inflammation be itself a deteriorating process, we must be careful to avoid farther depreciation as much as possible.

Experience shows, as far as we have been able to acquire it, that all forms of inflammation have a more or less definite course to run, which varies with the cause of the complaint and the condition of the patient. Thus gout produces one form and vaccinia another ; variola, rubeola, scarlatina, the paludal poison, all produce forms more or less characteristic, and differing from each other in important features. No plan of treatment that has hitherto been discovered can alter the specific character of the inflammation : we cannot make the varioloid inflammation terminate as the rubeoloid, or the scarlatinal as varioloid ; we cannot make the podagral inflammation terminate as the erysipelalous, or the carbuncular as the catarrhal. If this be so, it follows that our efforts must be directed to watch the natural efforts, and, where necessary, to obviate tendencies destructive to life or to important organs. As soon, then, as the first burst of fever has begun to subside, it is our duty to stay our operations until we have some distinct indication to guide us as to our future course. At present careful observation and enlightened experience have taught us the ordinary course followed by those inflammations which are produced by the operation of known poisons ; we can judge from the phenomena of the second part of their career of the best plan to be adopted during the first. In consequence of this knowledge venæsection is no longer practised in erysipelas, typhus, small pox, measles, or scarlatina during the first stage ; for, as a general rule, the patient requires during the second stage all his powers to enable him to recover from the depressing influence of the poison, or the disease it has induced. It is probable that a still more extended experience will add greatly to our knowledge of diseases which ought to be so treated. Thus mania, which was at one time considered as a complaint requiring the most active treatment and most heroic blood-letting, is now recognized as one of debility—the harbinger frequently of a break-up of the system, and one requiring generous living and tonics rather than a diet of rhubarb pie and senna tea. Until we have gained this experience for ourselves we may avail ourselves of that gained by others, and both British and foreign authors have demonstrated that pneumonia, acute rheumatism, pleurisy, and others may be advantageously treated without general loss of blood. Englishmen are proverbially slow in appreciating a new doctrine or a new practice, when it is opposed to the old established

custom, yet a great number of them have given in their adhesion to the practice, and many old practitioners who began life with bleeding three cases out of five, are ending their career with lancets in their pockets rusting from disuse.

It would appear then, *primâ facie*, that it is more judicious to *diminish resistance* than to *depress power*, and that if power is to be reduced it should be so only in such a manner as not to do subsequent mischief. The most striking example of the effects of venesection, used to depress power, is to be met with in cases of cerebral hemorrhage, where blood is taken, often in large quantity, to reduce the heart's force; the effect is certainly gained, but the result is too commonly cerebral softening from diminished vitality in the parts around the original disease. In what way, you will ask, is resistance to be diminished? Let us revert once again to the inflamed finger, which was the subject of so long a conversation. You adopted the use of a poultice, the sole effect of which was to make the strong fibrous skin absorb a quantity of water and distend more readily, but the distension, as you were painfully aware, was so slight that you got no relief beyond the idea that you might escape the lancet. Others, with more heroic firmness, diminish the resistance by making a free incision, by which tension is at once removed. I once was called to see a gentleman who was in a high state of fever, with erysipelas involving the whole front of the leg from the knee to the ankle. I made an incision through the skin over the whole length of the tibia, and before I left the house he assured me the relief was so great that he felt "in heaven." The cut gaped immensely, showing how great the tension had been; the fever subsided in a few hours, and the patient began to recover. He had, however, had two other attacks—one in the foot and the other in the calf prior to my seeing him; these had left their localities for a time, and the disease had appeared as "cerebritis" at one time, and "peritonitis" at another, ultimately settling where I found it. As soon as the system seemed to be recovering, suppuration took place in the calf and in the foot, large abscesses followed, and the patient sank.

Another plan of diminishing resistance is by puncturing the part, and thus evacuating directly a large quantity of blood from some distended vessels, and encouraging the others to contract. With diminished calibre in the capillaries the propulsive power of the heart operates as in health. The influence of this plan of treatment is very remarkable in erysipelas of the face and head—a disease which ordinarily runs a course of ten days or more, but which by free puncturing and the judicious use of wine may be curtailed to three or four days, or even a shorter time.

A similar result may occasionally occur from a different agency. Cold, we know, has a remarkable influence in diminishing the size of the capillary vessels during health, it is not surprising, then, that we find it adopted during disease. Evaporating lotions, therefore, cold applications of all kinds, including snow and ice, are frequently employed. Unfortunately, however, experience does not fully bear out theory in this instance; for the applications are productive of great pain, and are not wholly unattended with danger. The limit between arrested inflammation and actual destruction is so ill-defined and small, that the one may be mistaken for the other. It is curious in medicine to see how "extremes meet," and to find that a practitioner has an equal regard for both heat and cold, and to know an inflammation will succumb to the former when the latter has been used in vain, and *vice versa*.

The manner in which heat operates is commonly explained on the supposition that it promotes perspiration and diminishes the actual volume of the capillaries, and this idea receives support from the fact that moist heat is more efficacious than dry. But as moist heat, as far as we can tell, has a direct tendency *to promote suppuration, i. e.*, to produce disintegration of the tissue, and convert the vital organ into non-vital pus; we may also conclude that under the influence of heat the vital attraction between the tissue and the blood is weakened.

One other plan may be occasionally adopted to diminish resistance; and though it does appear paradoxical, it is frequently successful. I refer to direct general and equable pressure. The effect of this is to diminish the amount of blood in the inflamed part, and consequently to reduce the distention of the capillaries. We see a good specimen of this method in the relief which careful strapping gives to an inflamed testicle or breast, but still more in the wonderful influence the application of collodion has on erysipelas, and the varioloid inflammation.

These, then, are the means we employ in inflammations of external parts of the body, where we can see with our own eyes the result of the treatment adopted; to them I ought to add the use of such astringents or stimulants of a chemical nature which produce a somewhat analagous effect to ice.

Now we scarcely require to be told, that although we commonly find these effectual, it is frequently necessary to do something more. We may lance the carbuncle, incise the erysipelas, poultice the whitlaw, or foment the gathered breast, but that alone does not cure the patient; the inflammation has gone away, but it has left its sting behind; the parts will not heal; their vitality has been diminished by the process they have gone through, and their reparative power has gone for the

time. Under these circumstances what does the doctor do. There may be a rapid pulse—he disregards it; there may be fever—he calls it hectic; he sees only the want of “tone” in the part; he infers that an equal deficiency of vital power exists in the whole system, and he pours wine, and bark, and steel, and cod liver oil into his patient, as fast as the stomach will bear it; the diet is generous to the last degree, and brandy, ale, and porter are not withheld. If these are not enough to restore the vital powers, change of air is recommended, and possibly some strengthening mineral waters. Many a wound which the army surgeons, in days gone by, failed to cure, has closed up, and healed in the pure air and with the pure water of Eaux Chaudes or Eaux Bonnes, in the Pyrénées.

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## CHAPTER VIII.

## TREATMENT OF INTERNAL INFLAMMATIONS.

BEFORE we speak of the treatment of internal inflammations, it is necessary that we say a few words respecting diagnosis. At one time, and even up to a very recent period, a vast number of complaints were called inflammations, which were not so at all. Certain signs were considered characteristic, and whenever they were present, it was thought the presumed disease was there too. Thus, if pain in the head, fever, and delirium were present, it was a sign of phrenitis; a "catch in the breath," and tenderness on the side, with pyrexia, indicated pleurisy or pneumonia; pain in the right shoulder, hepatitis; pain and tenderness in the loins, inflammation of the kidney; pain at the epigastrium, gastritis; and tenderness and pain over the whole abdomen, peritonitis; pain about the pubes was put down to metritis, and of the left side to splenitis; tenderness along the spine indicated inflammation somewhere or other about the cord; and diarrhœa, with tenderness on pressure over the abdomen, was a proof of ulcerative inflammation of the small intestines. I have in another work ("Spinal Irritation Explained," &c.), pointed out the true explanation of many of the symptoms, once supposed to be characteristic of inflammation, and have pointed out how it was that certain plans of treatment *appeared to be successful, while they were in reality prejudicial*. We must leave all these falsities on one side, and confine our remarks on treatment to those cases of pure inflammation respecting which there can be no doubt. It is clear that we cannot treat internal inflammations in the same actual manner as we treat similar diseases when external:—we cannot make an incision into the lungs—apply ice to the bronchi, or nitrate of silver to the pleura;—we cannot well put leeches on an inflamed heart, or puncture an inflamed peritonæum. We are obliged, then, to adopt such other means as resemble the most closely those we have considered, and which operate on the same principles. We must attempt, in the first place, *to diminish the condition on which the primary fever depends*; and, in the second, *to assist nature to repair the mischief which has been done*. The first indication may be followed out in two ways:—*by diminishing the impulse of blood on, or by facilitating its progress THROUGH, the inflamed organ*. "Well



now," emphatically exclaimed Dr. Dignity, "what beats venæsection in reducing the impulsive power of the heart;—see how your patient faints from loss of blood, and admire the immediate relief to the symptoms which follows?" "I do not deny the power of bleeding in reducing the force of the heart's impulse; but allow me to remind you of the proverb, 'You may pay too dear for your whistle.' *The bleeding does not cure the inflammation, it only reduces the impulse upon the inflamed part*, and after a time the impulse will be nearly as strong as ever. Refresh your memory by reading Dr. John Armstrong's "Practice of Medicine," and you will see argued at some length the knotty point, how to prevent a recurrence of the strong impulse of the heart after a large bleeding. You will see, too, that a second and a third venæsection has been considered necessary, because the first has not diminished the power permanently. What, I may ask, would be the condition of the patient in the second or reparative stage of inflammation, whose powers had been exhausted in the first? We have the means of ascertaining at hand; we have only to look at the accounts given of the severity, mortality and tediousness of inflammatory affections by old writers, and compare them with those given by practitioners of the present day, who adopt a different plan. In their time the mortality from pneumonia was nearly thirty-three per cent. Acute hydrocephalus was an incurable disease, and a pleurisy was as formidable as pneumonia. Now the mortality of pneumonia is only about six per cent. Acute hydrocephalus is easily managed, (comparatively,) and pleurisy is very rarely fatal. The old writers argued from present relief—we from permanent good.

We have already referred to the fact, that the occurrence of *inflammation of the heart in rheumatic fever, is almost constant when large bleeding has been practised, and is rare where depressing agencies have been eschewed*. This, if it stood solitary, ought to demonstrate, either that bleeding neither cured or prevented inflammation, or that that which we call such, had been misnamed; which supposition is nearest to the truth I leave my readers to decide. We must now refer to another significant fact, *i. e.*, that in a vast proportion of inflammatory diseases, the heart's impulse is weaker than natural; for what reason are we to bleed *then*? Surely, if venæsection does so much harm in acute rheumatism, where the pulse is hard, and the fever high, it must be still more prejudicial when the fever is low and the pulse soft. I have myself a very vivid remembrance of a conversation I had, only ten years ago, with an old practitioner, who had the largest practice in a considerable town of Yorkshire; we were speaking of a mutual friend; I was told "he was dead. Poor fellow—he had pneumonia; I was

obliged to bleed him you know, and he had not stamina for it—so he died.”

As, however, the sense of the present rising generation is eschewing the use of the lancet so decidedly, I will not heap up arguments against its employment, but indicate the sole cases in which it is admissible. It is to be reserved for those cases where the inflammation *is not produced by any poison, is sudden in its access, excessive in its intensity, extensive in its seat ; where the patient has been in comparative health prior to its invasion, and has youth on his side ; where the fever is severe, and where there is not time for other measures to be employed with a similar end in view.* If the lancet is only used in these cases it will, as I know, be used not oftener than once in twelve thousand cases, or in a still larger proportion, at any rate in large towns. In giving up venesection, the profession has adopted other depressants, more temporary in their character, but as energetic for the time. Antimony is reigning at the present day almost as supreme as did the lancet formerly. It is unnecessary to go at any length in remarks upon the best way to administer it ; but we must ask *why it is given ?* It is given to *reduce the feverish impulse of the heart—not to cure the inflammation.* It is in inflammatory fever what a favourable position is in whitlaw : of what use, then, in the name of everything rational, can antimony be where there is no unusual impulse, or when the impulse, once great, has been subdued ? Would any one give a patient antimony after an anthrax had been lanced, or a fever or erysipelas overcome ? Yet we find it given in heroic doses in pneumonia, plenrisy, and bronchitis for days and weeks together, regardless of the stage of the inflammation ! Antimony has no specific effect on inflammation ; it cannot either strap organs to reduce their bulk, or incise them to relieve tension ;—it operates simply as a depressant, and as such has a limit to its usefulness. But it must be borne in mind that antimony is not an innocuous remedy ; it will itself, when used in too abundant quantity, *produce* inflammation, as would any other irritant poison. Nor is the remark unimportant, for we read from time to time of patients treated with such excess of the drug, that it cures the disease indeed, but only by inducing fatal inflammation of the intestines. The history of this agent is not uninteresting. It was introduced to notice chiefly by Lacennec, as advantageous in pleurisy and pneumonia. It rapidly superseded venesection. Then came the dogma—“ antimony is good for inflammation ! ” But poor human nature did not stop there. Like the persons who imagine ten doses of a bottle will do them ten times as much good as a single one, the profession generally argued—“ as antimony is good for inflam-

mation, the more we can give, and the longer we can use it, the better ; we will indeed not allow a single case to come under our care without employing it." From this false reasoning, we are not as a body yet emancipated, though we are fast becoming so. Antimony is used in fever, in bronchitis, and in erysipelas, in all their stages ; and too often is continued until the patient dies, or gets well in spite of it.

By some authorities whose judgment and experience are valuable, antimony is considered as not only a depressant but a pulmonary diaphoretic—and, as such, particularly useful in the early stages of croup and bronchitis, before any secretion takes place. The idea is too important to allow us either to adopt or reject it without due consideration, for it ought to be laid down as a medical axiom—"the more plausible the dogma, the more closely it must be investigated"—just as a beggar with a ready story is pretty certain to be a rogue.

We ask first of all, is it *necessary* that a dry tracheal and bronchical mucous membrane shall be made to perspire ; and secondly, is antimony the most proper thing to make it do so ? We can only answer the first question by analogy. We know when we first begin to have a coryza or catarrh, that a dry stage precedes that of secretion ; but we know that as long as the latter is absent—and when after being present it leaves us, we are far more comfortable, and the nostril is far more patent than when secretion is present.

Speaking from personal experience of the effects of opium in coryza—a drug which has the singular property of checking completely, and for many hours, the secretion from the schneiderian membrane, I should unhesitatingly prefer the dry to the moist condition.

Again, in croup we know that the danger to the patient begins after the stage of secretion sets in ; and I have known one instance in which by great care, &c., the complaint has not reached the secreting stage. The patient never, during the ten days of the complaint, having had a moist cough or any expectoration. I may add that the family in which the case occurred were particularly liable to croup, and that the only fatal case was where active depletory measures were employed. In descending still lower down the chest we see the unadvisability of promoting bronchical secretion. It is certainly true that in asthma, relief is very greatly promoted by free secretion from the mucous membrane ; but is that an example we should adopt as a guide ? It is doubtful, first, because by a favourable change of air, the asthma will go off without any unusual secretion at all, and secondly, because there is strong reason to believe that the secretion only acts as a sort of mechanical coating for the membrane, and deadens the influence of the inspired air upon it, just as spermaceti cerate comforts a sore lip on a frosty day.



But there is positive evidence which should lead us to deprecate, as a general rule the occurrence of pulmonary diaphoresis. It is this. It is of the utmost importance for the aëration of the blood, that the air tubes shall be of adequate calibre—but if their area be encroached on, first, by increased thickness of the mucous membrane, and then still farther, by a secretion on its surface, it is clear that the passage through them must be enormously reduced, if not closed up entirely. This obstruction to the entrance of the air through the bronchial canal can only be overcome by the respiratory efforts—and these, antimony, from its depressing effect, most materially diminishes.

Again: If pulmonary diaphoresis is advisable, is antimony the best drug for us to have recourse to? We know that it is a powerful depressant. We know that other depressants, such as tobacco, will, like it, produce perspiration; but then we know that consumption and rheumatic fever will do so too, and that in these complaints those are the worst cases in which the cutaneous secretion is the most free. The diaphoresis then, which is produced by antimony, resembles that of debility rather than that of health. The occurrence of debility in pulmonary diseases is always to be deprecated. Experience has taught us that those cases of croup are the worst in which the most active depletion has been early used, and that those attacks of bronchitis are the most fatal which we meet with in the weakly and old. We have frequently seen a bronchitic patient get comfortably along until his powers have been tasked by some hard work; he has then died “off hand,” unable to inflate the chest. We have seen one or two die from the lowering effects of antimony, which has not only reduced the inspiratory power, but the no less important expulsive efforts of coughing.

We occasionally see diaphoresis, both cutaneous and pulmonary, encouraged by warm drinks, as tea, negus, lemonade, or other mild stimulants—the effect of these is salutary without an exception. This being once conceded, it would be almost absurd to put a strong depressant into the same category. I have known the two plans tried on the same individuals. Antimony has produced deadly prostration and bronchial secretion, without the power to expel it, while plenty of fluid has produced a loose cough and abundant power of expectoration.

This view is not supported by theoretical considerations solely, for experience has demonstrated that a plan of treatment based upon attempts to keep the mucous membrane dry, or to lessen its secretion when present, is of far more service than one for promoting pulmonary diaphoresis. I have for many years been in the habit, for example, of treating the early stage of bronchitis with opium, and the later with chalybeate or other tonics, and with very signal success, especially in

children, In the routine treatment of the same disease, blisters applied to the chest are the most popular remedies, and these I shall hope to show, by-and-bye, act as local stimulants, the "cantharidine" being absorbed through the skin, and diminishing the secretion just as a stimulating injection, or copaiba taken by the mouth, diminishes the discharge from the urethra in gonorrhœa.

*Colchicum*, *tobacco*, *digitalis*, and other drugs, are used with a similar intention to antimony, and with the same indiscrimination !

*Calomel* and *opium*, or mercury in any other form, has a somewhat similar effect as antimony, but it deserves a special consideration, which we will give it by-and-bye.

*Starvation and low diet* is another means by which the heart's power is diminished. Of the importance of a diminished supply of food, in the early stage of acute inflammation, there can be no reasonable doubt, because nature has herself provided that there shall be a total loss of appetite, and almost, of the powers of digestion ; *but when once the mischief is done, and the activity of the inflammation is over, to what advantage is it that the patient shall be deprived of that nutriment which more than any other thing is necessary for reparation ?* I had not long ago an extremely interesting case under my care, in which the principles I have advocated were signally conspicuous. A man was admitted into hospital with rheumatism. He was a seaman ; had been wrecked, and suffered great hardship and privation ; he was the personification of wretchedness. He was put upon full diet and other good things, but his appetite was feeble, and he ate scarcely anything. A few days after admission, he had iritis of one eye, which was treated by a blister to the temple, belladonna around the lids, mercury and wine. It was relieved in a few days ; *the second eye was then affected* ; (query—can we say then that the internal treatment cured the first ? ) and was treated by a single blister. This was likewise relieved, but neither one or the other would get well. Iodide of potassium was of no use ; the cornea began to be opaque ; intolerance of light continued ; all medication directed to the eye was abandoned ; quinine, steel, wine, porter, cod liver oil—were tried perseveringly, according to the state of the stomach, &c. At last, a change suddenly came over him ; his appetite returned ; he began to plump up a little, and in a week the inflammation had entirely left both eyes ; the intolerance of light was gone, and shortly afterwards the man went out well.

Another patient, aged about twenty-five, was admitted with pneumonia, single at first, but rapidly becoming double—calomel and opium alone were used. In about four days profuse sweating set in—the feverish symptoms disappeared. The man felt hungry ; he was



allowed a full dinner of beefsteaks and porter; and on the eighth day of the disease he left the hospital, insisting that he was well. Half of both lungs were solidified, but I ascertained from frequent subsequent examination that they recovered themselves completely in six months, and without a bad symptom.

I have had two cases of pneumonia, in which the relief at the outset has been most signal and satisfactory, from the free use of depressing medicines and local bleeding; but in neither of them could I get the disease beyond a certain point. I have no doubt that had I been more sparing of medicines, and more generous in the administration of food, if I had stayed the use of mercury, &c., as soon as ever relief had been evident, and given cod oil in its place, the termination would have been more satisfactory.

Low diet, then, we conclude, is, like antimony, a means of cure whose usefulness is *limited to a short period*, and which, if prolonged beyond a certain point, becomes more prejudicial than advantageous.

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We next enquire into the constitutional means we possess of modifying the resistance to the circulation through an inflamed organ. It is clear that we can only operate in this case indirectly, and through the medium of the circulation generally, or through the medium of the surface of the body nearest to the diseased portion.

We commence our examination of those that act apparently through the medium of the blood—or of the general tissue of the body—and foremost among these stands *mercury*, and so general is its use that it deserves the fullest investigation. Mercury, like antimony and venesection, has long been considered a most valuable remedy in inflammation generally, and it has at last become so popular that a practitioner scarcely considers he has done his duty until he has administered it in inflammation, and to such an extent as to produce its characteristic symptoms! From the personal experience I have already gained, and from the remarks of others, I feel little doubt that this estimate of the drug is a false one.

To get a definite notion of the value and influence of any medicine in disease, it is necessary to note well its action and influence on people in comparative health. We have abundant means for ascertaining the effects of mercury in this way, from the frequency with which it has been used in venereal disease—where the constitutional powers are often unimpaired. The first thing that we notice is, that few people can take a single dose of blue pill or calomel, even when they act as purgatives, without feeling a greater amount of nausea and debility than

would be produced by jalap or scammony. Secondly, that when they are in a marked manner under the influence of the drug, the gums are sore and spongy; the mucous membrane of the cheeks, and probably the margin of the tongue, ulcerates; the parotid and sub-maxillary glands are *inflamed*; the individual is weak in body, and low in spirits; the heart is weak; the proportion of blood globules in the blood is diminished, while *the fibrine is increased to the same extent as in inflammation!* “The blood drawn from a vein puts on the same appearance as it does in inflammatory diseases.”—Pareira Mat. Med., vol. i, p. 814. “While in this condition individuals are subject to various accidents, all indicating the low condition to which their powers are reduced; some become deranged, some paralytic; courses of mercury predispose to aneurism; aged people treated with mercury for syphilis are in great danger of dying suddenly from apoplexy, or hæmoptysis; and young people are in similar, though less, danger of the latter.”—Dr. Porter, *Dublin Medical Press*, Feb. 10, 1847. The occurrence of sudden death in salivation, as described by Mr. Pearson, in 1800, is evidently [due to the same causes as the last occurrence, *i. e.*, degeneration of the circulating system, especially of the heart and arteries. It is tolerably evident, from these considerations, that mercury is a drug which depresses the vital powers, and *promotes disintegration of tissues*. This receives confirmation from the well-known fact that, if mercury be used in Bright’s disease, or any other where the vital powers are already very much enfeebled, a small quantity will produce frightful ulceration, and even gangrene of the mouth and other parts of the body. But, though there can be little doubt of the correctness of this view of mercury, it is clear that when given in disease, it operates in some other mode than as a simple depressant, for if that were its chief operation, it would be unequal to, and therefore superseded by, antimony; we see, therefore, in the effects of the drug in diseased conditions, some other explanation for the high estimation in which it is, or has been, held. Passing by its supposed influence on the liver, and leaving out the notion that it is a general director or policeman for the chylipoietic viscera, whose business it is to stimulate them when dull, control them when vivacious, and correct them when obstinate,—we find that it appears to have a remarkable influence in cases of adhesive inflammation; indeed Dr. Watson, who enquires very impartially into the effects of mercury, speaks of it as “the bridle of adhesive inflammation.” Now, this consideration is very important, for we infer, from what has gone before, that in checking the adhesive inflammation, it is not likely to leave the part in a *more* healthful condition than it found it—it must

necessarily be in a *less*—mercury, therefore, there is strict reason to believe, operates by *converting adhæsiue into suppurative*, or, at any rate, *disintegrating* inflammation. *It reduces the vitality of the inflamed part*, and with it, the resisting power to the circulation; the vital attraction between the blood and the tissue is diminished, and the fever abates, because there is no longer the necessity for increased impulse from the heart. If this interpretation be correct, a number of deductions follow, of the truth of which we have had demonstration in our own individual experience. Mercury is not *necessary* in any diseases in which the vitality is extremely low. Mercury by increasing the systemic debility of the patient will, in rheumatic fever, augment the chances of cardiac inflammation, and prolong the duration of the disease. The good effects of mercury are to be recognized *without any salivation being produced*. The use of the drug may be suspended, *very shortly after the advance of the inflammation has ceased; a continuation of the mercury beyond this point retards rather than expedites the cure*. The use of wine, paradoxical as it may seem, is often of great value while mercury is being employed. It would prolong the subject to too great a length were I to give the details of all the cases of pneumonia and other inflammations in which I have used the drug; but it may suffice to say that I have so frequently and almost constantly seen a marked improvement after two or three doses only, that I have been forced to the conclusion that, in many instances, either the patient has a natural tendency to get well on entering a hospital, or that a very small matter suffices for his cure. As soon as ever I find improvement apparent, the medicine is reduced, then suspended, and a generous diet and tonics adopted. The almost universal success of the plan, and the rapidity of the cure, afford tolerable evidence of the general correctness of the principles we have endeavoured to lay down. To sum up, we consider that mercury diminishes the vital attraction between the blood and the tissues; *that it impoverishes the former and reduces the vitality or integrity of the latter; that it converts the adhæsiue form of inflammation into a lower type; that it promotes the disintegration, breaking-up, or waste of the tissues; that its apparent good effect is in reality due to its destructive powers; that it acts upon effused lymph, &c., most, because that is of lower vitality than the tissue which formed it—both are reduced, but the former in much larger proportion than the latter, just as in scurvy, old wounds open before the parts around them, and old callus is absorbed while the original bone remains unchanged. This is the true explanation of the effect of mercury as a liquefacient, consequently there is a definite limit to its use, and it ought to be followed by such tonic remedies as*



would tend to counteract its depreciating effects. The importance of this view of the question it is impossible to over estimate. Similar observations apply to other medicines, commonly classed as liquefacients, such as alkalies and their salts. None of them have the same amount of influence in the healthy; and the effects are still less marked in the diseased than those of mercury; the best of them is the hydrochlorate of ammonia, to which may possibly be added, as second best, nitrate of potash.

If this view of the use of mercury be the correct one, it is tolerably clear that the drug is only likely to be very useful in those cases where the effused lymph, &c., is surrounded by comparatively healthy tissue, and that it will be of little utility in cases of croup, pleurisy, bronchitis, and the like, where the effused fluid is only in contact with healthy structure on one side—when pushed to excess in any of these diseases its tendency is almost uniformly bad.

Of the utility of *local depletion*, it is almost unnecessary to dwell at length. Its advantage, is readily recognized when we remember the utility of punctures and incisions in erysipelas—of incisions in anthrax, and of leeches externally, in catarrhal inflammation of the tonsils. It diminishes local resistance, promotes a return to a healthy circulation, and is of advantage as long as there is an excessive distension of the blood vessels. It is useless as soon as there has been an effusion of fibrine or serum. There is, however, one caution to be borne in mind—local bleeding should rarely, if indeed ever, be carried to such a point as to produce the effect of venesection. A leech may have the same effect on a child, as the loss of a quart of blood would have on an adult. Of course this remedy has a limit; for local depletion is of little service when the inflammation is at a great distance from the surface. We do, however, find it of great utility in a congested state of the kidneys.

Of the advantage of *blisters*, or as they are commonly called, *counter irritants*, there is very grave reason to doubt; but the universality of their employment has afforded comparatively little opportunity for testing the effects of their abandonment. I may, however, help to a true appreciation of their value, by giving the result of my own experience. Having as a student been greatly disappointed, both with the theory and practice of counter-irritation, I made a resolution to abandon the routine employment of them in my own practice. Circumstances gave me early the opportunity of trying my ideas on a large scale, in a public institution. My two colleagues blistered every case of strumous ophthalmia. I never blistered one. My average duration of treatment was shorter by nearly a week than theirs. My patients were cured in from seven to fourteen days: theirs in from

fourteen to twenty-one. With the exception of the blister, our separate treatments were similar. I was subsequently attached to an institution for the diseases of children, where we saw an immense number of patients with bronchitis, pneumonia, &c. My colleagues' routine treatment was blisters and antimonials. Mine was steel and paregoric, and nothing more. I examined as far as I could the results of each plan, and though I am unable to say how far the benefit was on my side, as respected the duration of the disease, and the effects of treatment, I was satisfied that the blisters were quite unnecessary in the vast majority of cases. In the acute stage of the inflammation *they are positively injurious*, for they increase the febrile action; in the chronic stage *they are commonly useless*. When I became a hospital physician, I still carried the same enquiry on—employing blisters from time to time, where routine directed, so as to be able to compare the better both sides of the question. The conclusion I have arrived at is, *that blisters may do good in one case out of five of chronic rheumatism in the larger joints; that they will rouse a person from coma; that they will occasionally determine the rapid reduction of pleuritic effusion; that they will enable the doctor to distinguish false or exaggerated symptoms from true ones*. They will occasionally act as a stimulant, and thus do good in *asthenic* inflammation. We know that cantharadine is absorbed from a blister, for we have it operating upon the distant kidney within a few hours after the application has been made to the skin. It is therefore rational to suppose that *the advantage of a blister depends upon the absorption of the irritating material, and its operation upon the distended blood vessels*. In fact, the blister is an indirect means of doing internally what we do externally when we apply vinum opii, or any other stimulant, to an inflamed conjunctiva, only that it is a means inconstant in operation and doubtful in result.

We may make the same remarks upon the use of *heat* and *cold*, in internal inflammations, that we made in the previous part of our discourse—both may be useful, but their application is of limited extent. We cannot tell *à priori* which is the most likely to be of use. The heat, or otherwise, of the skin is the only guide we can find to lead us to a choice.

We have hitherto forbore to speak much of *purgatives* in the treatment of inflammation, because when they do do any good, it is doubtful whether that is due to diminishing the heart's power, to diminishing the volume of blood in the capillaries, &c., or on the presumed principle of counter-irritation. After a careful comparison of my own cases with those of others, and a close observation of the effects of purgatives when ordered by myself or my friends, I



have come to the conclusion that they are, in the majority of cases, *absolutely unnecessary*, and in many, *really prejudicial*; and, farther, that when they do appear to do good, it is simply by giving *increased comfort* to the patient: no one enjoys a stuffed rectum, and all, whether well or ill, like to have it emptied, as they would a midden when it was "chock-full." The persistent use of purgatives weakens the system, produces flatulence, and impairs digestion.

*Opium* is of indirect good in some inflammations;—it relieves pain and procures rest. This saves the patient's strength. It does farther—it *diminishes the vital attraction between the blood and the tissue*, and, in some instances, *e. g.*, ordinary catarrh, reduces the secretion from mucous membranes, (a fact recognized, too, in the dry mouth accompanying the after-effects of laudanum, &c.) It is particularly useful in peritonitis, severe pleurisy, and orchitis.

I will not, at present, continue this subject farther, but will, with your permission, attempt to epitomise the conclusions to which I have been wishing you to arrive.

1.—That many things are called inflammation which are not so in reality.

2.—That the presence of inflammation pre-supposes an overcoming of the vital powers by some cause of disease.

3.—That inflammation is, to a certain extent, the result of debility, and always the cause of local or general diminution of vital power.

4.—That it is essentially a process of deteriorated nutrition.

5.—That the type of inflammation varies with its cause and the condition of the patient.

6.—That most inflammations have a definite course, which can only be slightly modified by treatment.

7.—That the adhæsiive or suppurative types of the complaint are determined by the vital condition of the patient.

8.—That in all inflammations there are two stages; one of invasion, mischief-making, and destruction, the other of reparation.

9.—That any plan of treatment, *e. g.*, venæsection, which materially weakens the constitution, though it may appear to mitigate the first stage, materially lengthens the second.

10.—That bleeding has already been abandoned in many inflammatory diseases, in which it once was popular, and that modern experience is adding others to that category; that the same may be said of antimony and mercury.

11.—That many inflammations, such as the rubcolar, scarlatinal, gouty, erysipelatous, and catarrhal, have a direct tendency to get well of themselves, without any interference.

12.—That farther experience will, most probably, add many others to the list.

13.—That antimony and other kindred remedies are only useful in the first stage of inflammation, and are absolutely prejudicial in the second.

14.—That mercury promotes the waste of tissues; diminishes the vitality of organs; converts the adhæsiue type of inflammation to the one below it; and encourages the absorption of lymph, solely because it is of lower organization than the parts forming it. That its utility has a limit, and that its administration ought to be followed, if not accompanied, by the use of tonics and stimulants.

15.—That in the second or reparative stage of inflammation, as generous a diet should be given as possible.

16.—That the less furious the onslaught of the doctor in the first stage, the less would the power of the constitution be shattered, and the shorter would be the disease; and, on the contrary, the more severe the treatment, the more prolonged would be the convalescence, and the greater would be the danger of ultimate mischief and even of death.

17.—Lastly: That the correct plan of treating inflammation, is to consider the constitution of the individual; the origin of the disease; the type of the inflammation; and the condition of the vital powers. That where it is necessary to reduce your patient's strength, it must be done as sparingly as possible, and by such means as will not have any permanent effect upon his vital powers—such as tepid or cold sponging, nitrate of potash, soda water, ice, ipecacuanha, wine, antimony, calomel, local bleeding, or venæsection, if absolutely necessary. That as soon as the first burst of the feverish excitement is over, it is necessary to endeavour, by gentle means, to enable the system to repair damages; that the amount of food, tonics, or stimulants, must be regulated by the wants of the system, the weakness, or otherwise, of the respiration, the pulse, the stomach, &c.

That in every case you are to consider you are treating an individual human being, and not an imaginary type manufactured in a book, and called there inflammation. Engineers have long taught the art of fortification, yet none can lay down with unerring precision the best way to take a Sebastopol, whose defences, lines, batteries, &c., are changing every day. There is not—at any rate there ought not to be—any routine treatment in inflammation.

But I will not content myself with generalities. I will tell you shortly of the plan I adopt in certain cases, and which I have every reason to be satisfied with. If the case is one of so-called acute hydrocephalus, I apply cold to the scalp, in one form or other, as long as the heat of the skin is excessive; if there is much feverishness, I

administer nitre, and recommend frequent tepid sponging of the whole body; as soon as there are any marks of languor, I use steel in full doses, with aperients occasionally, to prevent accumulation in the rectum, and consequent straining at stool. If the cerebral symptoms are very acute, and there is excessive pain, two or more leeches are applied to the mastoid process. But as one case of hydrocephalus differs from another in so many points, this must suffice for a sketch.

Erysipelas of the face is most rapidly cured by punctures and hourly doses of tincture of iron; but, as few have the nerve to stand the infliction of pain, we are obliged to be content generally with the steel alone. As a matter of comfort, it is well to clear out the bowels once, and then leave them alone. It is rarely that we have to treat severe fever at the outset of this complaint, but where it is present it does not require stronger measures than the solution of acetate of ammonia, or what answers even better, a fresh and fresh solution of nitrate of potash in water, about a scruple to a tumblerful of water, added as it is wanted—it quenches thirst, and reduces fever, without diminishing the vital powers.

Of inflammation of the various parts of the eye it would be difficult to give a succinct account.

For inflammation of the tonsils, in the early stage, nothing exceeds in value the direct influence of camphor held constantly in the mouth for about thirty-six hours—it will generally prevent suppuration and operate a complete cure.

For genuine inflammatory croup an emetic of ipecacuanha and antimony answers the best; after its operation it is necessary to watch the symptoms very closely, for in the majority of cases nothing more will be required. If the local inflammation, however, still runs high, leeches are advisable, and calomel and opium are of service. As soon, however, as the intensity of the attack is over, restoratives are imperatively called for; few children, if any, die from complete closure of the trachea—they die from inability to distend the chest sufficiently, and consequent congestion of the lung; at all hazards, then, attempts must be made to keep up the muscular power. I have already mentioned that profuse general bleeding in the earliest stage will rather accelerate than prevent the formation of false membrane.

In bronchitis my plan is to give an emetic, if there be any large accumulation of mucus; opiates, if very little, and, as soon as the first stage is over, paregoric, steel, wine, cod liver oil, or any stimulating balsam. The most intensely severe case of bronchitis I ever saw, I treated exclusively by wine, and the patient informed me that he recovered more rapidly than he had done from any previous attacks. He told



me, when I first saw him, that he had tried and taken such a quantity of different kinds of medicine, that he did not intend to take any more. I was then, in a manner, driven to adopt a medicinal stimulant. The quantity he took, was a pint of port a day, for a fortnight.

In pneumonia I rarely do more than give calomel and opium, but I have had once to add antimony, where the fever ran high, and the expectoration of pure blood was considerable. I generally find that improvement after admission into hospital is so great and so immediate that I am hesitating whether to attribute it to the influence of the medicine at all. I have never yet salivated any of these patients, but I have frequently used wine largely with the mercury, and with gratifying results. As soon as ever the pulse and the breathing begin to improve, the quantity of calomel is diminished, and then suspended entirely, and the future course is decided by the condition of the patient. Some require strong stimulation and very generous diet to prevent them falling into a phthisical or typhoid condition. Others require nothing but kitchen physic, and possibly quinine to encourage an appetite and promote digestion. One old man I sustained for some weeks with a quart of rum a day, but he succumbed at the end of three months, from gradually increasing asthenia.

I am bound, however, to say, that I have seen pneumonia treated in the country with general bleeding, and the result has been quite as well marked as under the plan adopted by myself. But in these cases it was tolerably clear that there would have been scarcely time for mercury to act, so intense was the inflammation, &c., in the early stage. I have, too, seen antimony as successful in hospital practice as calomel and mercurial inunction; but I have also known the drug to be used in such doses, and for so long a period, that it has turned the scale against the patient's life.

In pleurisy there can be no general law laid down. I have seen the disease occur in phthisical patients, without any but physical signs. I have seen it occur in a wounded man, and not give any evidence of its presence until the whole thorax was filled with fluid, and then the only sign has been difficulty in breathing—*i.e.*, the one lung could not well do the work of two. At other times the most prominent sign is pain, at another, dyspnoea, at another intense fever. In accordance with these various phases, we feel called on to employ cod oil and tonics, iodine, paint or blisters, leeching, mercurials, antimonials, or opium.

Pericarditis is most advantageously relieved by local bleeding, and by an occasional blister. Salivation is manifestly a remedy doubtful, seeing that the complaint often comes on when a patient is already



under the influence of mercury. The same may be said of endocarditis.

Inflammation of the stomach is best treated by ice and cold water alone. The same is true of the bowels.

Of genuine hepatitis I will not speak, as I have had no personal experience of the complaint.

Of peritonitis I speak with diffidence, but it seems, from what I have seen, that opium alone promises better than any single drug; but the diagnosis in cases of recovery is not always sufficiently clear to make us certain whether the complaint under treatment has been genuine peritonitis or not.

In inflammation of the bowels, dysenteric or otherwise, I can only speak with great doubt. I have seen a child of five years old sink under the application of two leeches over the caput coli. The evidence of army and naval surgeons is at variance both as to bleeding and the use of mercury. Dysentery is allied to marsh fevers, and is encouraged by bad diet. I conclude, therefore, that it would be better, as a general rule, to try in the first such medicines as would do no harm to the system. In some five instances of incipient dysentery, or what appeared to be such, enemata of laudanum and steel have put a stop to the complaint in two or three days.

Acute inflammation, or congestion of the kidneys, is relieved, so constantly, and in so rapid a manner, by cupping, or a few leeches to the loins, that we are constrained to put much trust in them. Purgatives, by carrying off much of the fluid parts of the blood, greatly assist in the cure.

Now, there is one point to which I specially want to call attention, which is, that every organ when inflamed should have *rest*. The housewife would never use a whitloed finger for sewing. The man with inflamed tonsils shuns every effort at swallowing. In like manner, an inflamed stomach should not be called upon to digest; an inflamed kidney to secrete urine profusely; or an inflamed bowel to produce fecal evacuations.

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“ I have listened to you with great patience up to this point,” said Dr. Dignity “and I must now beg to enquire of you, how you can suppose you have reconciled me to give up my old notions, and embrace those of Dr. H. Pathy, or any others of the same school. You have yourself advocated the use of venæsection! of the scalpel! of the leech! and cupping glass! of antimony! mercury! ‘et hocgenus omne!’ and yet you praise by implication, a system that does nothing!

If you do attempt to reconcile us, it will only be an union like chalk and acid, an infinity of bubbulous trouble, and an insipid salt at last!"

"You mistake me," said Dr. C. Sense, in reply, "I have attempted to show that you have been in the habit of *misusing* the remedies I have described: you have used them as many an exhausted traveller does wine—a little cheers and strengthens him, a large draught intoxicates and makes him sick and ill. You hold to wine, seeing only the good it sometimes does, and resolutely shut your eyes to the evils of drunkenness. The teetotaler sees the latter only, and is blind to the former. *What the teetotal temperance movement was and is in the world of men, Hahnemannism is in the world of drugs.* You pick out the good cases, where such drugs as opium and quinine have done wonders, and fasten your shield on that flagstaff. Your adversary takes your bad cases, and demonstrates that the shield has a different pretence to the one you showed. You labour to prove it a golden one, he insists that it is brass. You carry on the war with him in the same way, you select *his* bad, and ignore his good cases; in ridiculing his theories, you neglect his facts, and in doing so, you miss them as a means whereby you might improve your own position.

Now, instead of contending like two Billingsgate heroines, whose weapons are brute force, obstinacy, vituperation, and retort, you should negotiate calmly, frankly acknowledge that you have been frequently wrong; allow that you have sometimes been like the man who, to satisfy the cravings of hunger in another, has given food and wine in such quantity that they have produced death by repletion; allow that you have sometimes attempted to knock down a fever, or subdue an inflammation with too hard a blow; allow that in your zeal for your patient's immediate relief you have omitted sometimes to think of his ultimate comfort, but that you do not intend to do so again; you will follow a sounder judgment; you will not give medicine under the idea that it is bottled health, or use mercury as if it were the 'clixir vitæ,' or antimony as if it were Esculapius himself embodied. For the future you will use them only as means to an end—an end which may be attained by many another route. As soon as ever you adopt as your watchword 'a due regard to health,' instead of 'an active administration of medicines,' your strength will be immeasurably increased. It is true that you may still be invited to pin your faith to nature alone; to trust in the chapter of accidents, and administer, as your sole remedies, globules, containing nothing but confidence and hope. You may still be promised an undoubted success, but each invitation will be weaker, each vaunt more hollow, each boast more vapid. Dr. Pathy may continue to boast that, in the

course of three weeks, he can procure an intestinal evacuation by the daily administration of the

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1,000,000,000,000,000,000,000,000,000,000,000,000,000,000th of a grain of 'nux,' or the 28th dilution. You, when you want to do the same, will content yourself with an old-fashioned dose of castor oil or senna tea, and relieve the bowels in as many hours as your opponent has taken days. You may naturally consider that you deserve best of your patients; but I can assure you, that you will not find all of them taking the same view of the question. The public, especially the ladies, do not always look upon medicine as we do. They consider a mild attack of illness as a serious thing; it enables them to demand warm sympathy, unusual care, deep devotion, and unmitigated indulgence. It is with them a sort of luxury which can only be thoroughly enjoyed by the wealthy: and as part of the luxury, they enjoy a daily visit from a chatty doctor, who will hear and condole with griefs; who will, in words, exaggerate trifling symptoms, until they become grave; and who will attempt to cure them by such medicines as are scarcely available to the vulgar herd. Who cares for rhubarb which a charwoman can buy as well as a duchess? How much more delightful it is to know that the globule swallowed has not attained its potency until it has been subject to a lovely trituration, which has spiritualized its essence, and given it a body as ethereal as the sylphs and fays of fairyland. It is true that when real downright illness comes something more will be required, but then real illness is as rare as mild attacks are common.

"Now, you may, if you are anxious to fill your purse, take advantage of these amiable little weaknesses, and learn to chat and (what some strong-minded individuals call) humbug your patients, just as any eminent fashionable M.D. or watering-place Professor. You will soon be able to reconcile yourself to ordering 'Haustus Champagnœ,' instead of Black Draught; and Pil: Plum: Cakœ: Co, instead of Epsom Salts. You may then attain a vast practice, and be inclined to think you have at last hit on a new theory of the practice of medicine; but, let me entreat you to keep your success to yourself, for the love of that science which, after all, you have so deeply seated in your heart's core. I see, however, from the frown settling on your brow, that you are not one of those who prefer lucro to an honourable, upright, and manly course. I will therefore content myself with a parting word. Whenever you hear of any one, though he may be only a bone-setter, or a cow-doctor, being able to perform marvellous cures, always listen, enquire, examine, ere you condemn.

"It is better, in more ways than one, to gain the knowledge of an additional fact, than to make an enemy. If you will carefully do this; if you will never misuse drugs; if you will take care to estimate them at their true value; if you will throw aside prejudice, and reason as philosophically as a physician ought, you will no longer feel sore and offended by Dr. Pathy's heresy; you will see, in the future, light rising out of obscurity; you will remember the motto of our gas company, "Ex fumo dare lucem," and will recollect that there cannot be even a bottle of froth without some substantial material to make it of. Dr. Pathy, on the other hand, will gradually see that his system only appears good when contrasted with the worst part of yours; and that his best results are thrown into the shade by yours; his theory he will abandon as absurd, and though he will not himself change his scutcheon, he will not encourage others to range themselves under his banner. Both of you will be ashamed of yourselves, as regards the past, and will gladly bury your feud in oblivion. Medical knowledge will then become, as it really ought to be, one of the most valuable acquirements which human nature can possess. Systems opposing each other now, will all fall into one mighty stream, and every patient who commits his bark to its bosom, will be landed in the ocean of health, unless, indeed, his course is restrained by the hand of Providence, a power, against which all mundane sciences are impotent and vain."

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Some statistics, which have recently appeared in the *Liverpool Medico Chirurgical Journal*, (No. 3,) are so important that I shall quote them at length. They all occurred in the practice of Dr. Cameron, of the Southern Hospital, Liverpool, by whom they are reported:—

#### PLEURITIS.

Antiphlogistic treatment, 29 cases.

Recovered, 24. Died, 5

Of the 24 who recovered—

Duration of illness, in 12 cases, 14 days or more.

"	"	10	"	7	"	"
"	"	2	"	uncertain.		



Progress of case—In <sup>15</sup>8 unfavourable, in <sup>2</sup>16 favourable.

Bleeding gave relief in all the cases, though in several it was only temporary.

Mercury, administered in 16 cases.

In 12 no action on the mouth.

In 5 abdominal irritation, increase of febrile, and pulmonary symptoms.

„ 4 progress favourable.

„ 3 results uncertain.

In 4 mouth effected, (on the 4th, 5th, 6th, and 9th days)

In 2 immediate improvement.

„ 2 results doubtful.

Antimony, administered alone, or with opium, in 6 cases.

In 4 cases it seemed to act beneficially, without any gastric or intestinal disturbance.

In 2 abdominal irritation was present, with consequent depression of the system, and aggravation of the pulmonary symptoms.

Of the fatal cases—

Bleeding was practised in all, and with temporary relief.

Mercury, administered in all; in none did it seem to arrest the disease; in one it brought on severe dysenteric symptoms, which appeared to hasten the fatal event.

Treated without bleeding or mercury, 13 cases, all recovered.

Duration of cases—In 2.....14 days or more.

„ „ „ 11..... 7 „ „

Progress, in 4 unfavourable—in 9 favourable.

#### PNEUMONIA.

Antiphlogistic treatment—20 cases.

Recovered, 15. Died, 5.

Of the 15 who recovered—Duration of illness in 9 cases, 14 days or more.

„ „ „ 6 „ 7 „ „

Progress of the case—In 8 cases, favourable.

„ „ „ 7 „ unfavourable.

Bleeding.—In most cases immediate relief followed the use of this remedy, but frequently this relief was only temporary. In five cases, extension of the disease, either in the substance of the lung, or to the pleura, occurred after bleeding.

Mercury was administered in 5 cases.

In 2, improvement of the disease occurred.

„ 1, no benefit was recognizable.

„ 1, aggravation occurred during its administration.

Antimony was given alone in 10 cases.

In 4 cases, gastric or intestinal irritation, accompanied by depression, occurred; in 2 of these cases an aggravation of the disease ensued.

The 5 deaths occurred respectively on the 2nd, 5th, 5th, & 18th days. In the 5th case the period of illness was uncertain.

The 5 cases were treated by bleeding and antimony; in one case mercury was given in addition.

Bleeding.—In 3 cases immediate though temporary relief.

„ „ 2 „ no relief.

Mercury.—In 1 case, mouth effected on the 11th day, notwithstanding, increase of the febrile symptoms occurred, extension of the disease, and death by acute gangrene.

Antimony.—Intestinal irritation in one case.

Treated with antimony, diaphoretics, quinine, or stimulants, (opium administered in nearly all,) 34 cases.

Recovered, 24 Died, 10.

Of the 24 who recovered—Duration of case in 17 cases, 7 days or more.

„ „ „ „ 7 „ 14 „ „

Progress of the case—16 cases favourable.

„ „ 8 „ unfavourable.

In the 8 cases in which the progress was unfavourable, the change coincided with the supervention of depression, attributed, in one case, to severe diarrhœa; in another to sickness and nausea. Antimony had been administered in all.

10 Deaths.—3 cases in less than 12 hours after admission.

2 on the 2nd day after admission.

3 on the 3rd „ „ „

1 on the 4th „ „ „

1 on the 13th „ „ „

Antimony was administered in two cases. The stimulating treatment was adopted in the other cases, in which the disease was far advanced either into the second or third stage at the time of admission.

#### ENDOCARDITIS AND PERICARDITIS.

Antiphlogistic treatment—Bleeding and mercury.

17 cases { 7 Endocarditis.  
10 Pericarditis.

Recovered, 16. Died, 1.

Duration of illness in 11 cases, 14 days or more.

„ „ 2 „ 7 „ „

„ „ 3 „ uncertain.

Bleeding.—In all the cases relief was obtained by bleeding, but in ten it was only temporary. In one case of endocarditis, the pericardium became engaged the day after bleeding; and in another—a case of uncomplicated rheumatism—the heart affection appeared after the patient had been bled.

Mercury was administered in all the 16 cases.

No action on the mouth in 7 cases. In three of these dysenteric symptoms occurred, aggravation of the heart disease supervening at the same time.

Mouth became affected in 8 cases, in 2 on the 4th day.

„	„	„	in 2	„	8th	„
„	„	„	in 1	„	5th	„
„	„	„	in 1	„	6th	„
„	„	„	in 1	„	11th	„
„	„	„	in 1	„	12th	„

Increase of the febrile disturbance coincided with the appearance of salivation in 3 cases, in two of which extension of the disease occurred.

In 5, the progress of the disease was favourable.

In 1, the results from mercury were uncertain.

One case died.

Bleeding—gave temporary relief.

Mercury—gave rise to dysenteric symptoms—did not affect the mouth.

The case was characterised by repeated relief, followed by an aggravation of the symptoms.

Two cases treated without bleeding or mercury recovered.

#### CYNANCHE.

Treated without bleeding:—

Cases, 14.

Recovery, without suppuration, 13 cases.

„ with „ 1 „

